

<212> DNA

<213> B.fragilis

<400> 3815

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<210> 3816

<211> 1350

<212> DNA

<213> B.fragilis

<400> 3816

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gacgccgcgt	tggtataata	agtagtgaat	gttcttttgg	gagattttta	tgaagagggt	1320
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<210> 3817

<211> 246

<212> DNA

<213> B.fragilis

<400> 3817

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<210> 3818
 <211> 936
 <212> DNA
 <213> B.fragilis

<400> 3818
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<210> 3819
 <211> 480
 <212> DNA
 <213> B.fragilis

<400> 3819
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 gacggacttg gggcggaatc cgatgaattt gctttcgttc tgtctctgtc ccgatgcttt 180
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 agtaagcatt ttccggaaat gcttacttct tttgcacaga atgttttgcct ctttttggga 360
 aaatgcaccg tgttcaaccc gaaatacccc cttcttttgt tggaaaaaac tccgtcttgc 420
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<210> 3820
 <211> 1902
 <212> DNA
 <213> B.fragilis

<400> 3820
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 aatgagtggg tgggttcgtca ggagattaag gtggaatctc cgaaagaagc caatgcgaaa 300
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 aatttttcta cctgtcaggg acatgtagtg gagcttgccg atttgttggg agcttatttc 480
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<210> 3821

<211> 1431

<212> DNA

<213> B.fragilis

<400> 3821

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aatttaatag	agaaagcccg	cctttgtaag	gggctcacc	accgggaagc	cgccatattg	180
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<210> 3822

<211> 1350

<212> DNA

<213> B.fragilis

<400> 3822

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ggtaaaggta	acgactttct	gggggtgggtg	catctgccct	cttctatcag	taaagagcac	180
ctggccgacc	tgaagctac	cgcacaagta	ttgagagaca	attgtgaggt	agtgatcgta	240

<210> 3823

<212> DNA

<213> B.fragilis

<400> 3823

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<211> 1329

<212> DNA

<213> B.fragilis

<400> 3824

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ccgaaacata	tccgtattag	cgaatacaat	tatccattgc	cggatgaacg	catcgctaaa	180
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1329

<210> 3825

<211> 246

<212> DNA

<213> B.fragilis

<400> 3825

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aggagcaaaag	tattgccttt	gaatatcata	gatacggaag	tatttcggaa	gtacccgcct	180
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<210> 3826

<211> 1776

<212> DNA

<213> B.fragilis

<400> 3826

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atcgaaccct	atcccgcagc	agagtatgta	accaatgctt	tctcaactga	tattaaagcc	180
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caccaggata	tttgtggcat	caacaagaaa	tacaaattgg	aactgaccaa	tccgtcagtt	1740
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<210> 3827

<211> 333

<212> DNA

<213> B.fragilis

<400> 3827

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cagttccgct	ccataacaca	aaaaatcgat	atcatgataa	aacttaaact	aagcattctt	180
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aaagtgttaa	ccttgaacga	ctatccggat	gctctccggt	tgtgggagtt	atataacgat	300
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<210> 3828

<211> 552

<212> DNA

<213> B.fragilis

<400> 3828

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taccaatttt	ccgccccatt	ccaatggaac	ttcctcagta	cccttcacgt	taatcttaaa	180
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<210> 3829

<211> 1704

<212> DNA

<213> B.fragilis

<400> 3829

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<211> 1737

<212> DNA

<213> B.fragilis

<400> 3843

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<211> 3528

<212> DNA

<213> B.fragilis

<400> 3844

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<213> B.fragilis

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<211> 435

<212> DNA

<213> B.fragilis

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<211> 738

<212> DNA

<213> B.fragilis

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<211> 1458

<212> DNA

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<211> 2679

<212> DNA

<213> B.fragilis

<400> 3851

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<211> 2718

<212> DNA

<213> B.fragilis

<400> 3852

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<211> 450

<212> DNA

<213> B.fragilis

<400> 3853

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<211> 2160

<212> DNA

<213> B.fragilis

<400> 3854

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<210> 3855

<211> 1158

<212> DNA

<213> B. fragilis

<400> 3855

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<210> 3856

<211> 468

<212> DNA

<213> B. fragilis

<400> 3856

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<210> 3857

<211> 1005
 <212> DNA
 <213> B.fragilis

<400> 3857

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 <211> 387
 <212> DNA
 <213> B.fragilis

<400> 3858

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gcagaagaag	tagccaacat	ttgcaactat	tttgacgaac	agatgggaag	agccaccact	240
gcgaaaaaga	acaaggatac	catgggttcgt	aacgctgttt	acggcaatct	gaaattgatg	300
aaaaagacgt	tgacagatgc	tcagtacact	aagtatacta	caatattgaa	catgactttg	360
aagaacaaag	gcacgaagt	aaagtag				387

<210> 3859
 <211> 786
 <212> DNA
 <213> B.fragilis

<400> 3859

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aacagaagga	caatccgcaa	ataccagcaa	aaagatatta	cgccggattt	gttaaataat	120
ttgcttgaaa	cttcattttc	cgcttctacg	atgggtggaa	tgcagcttta	tagtgtggtt	180
gtcaccctg	atgccgagaa	aaaagaaata	ctttctccgg	ctcattttta	tcagccgatg	240
gtaaaggagg	ctccggttgt	attgacattt	tgcgcggatt	ttcgtcgttt	ttgcaaatat	300
tgtcaggaaa	ggaatgcgga	gccgggatat	ggtaatttaa	tgtccttttt	gaatgccgct	360
atggatactt	tattggttgc	acagactttc	tgtacgcttg	ccgaggaagc	cggattgggt	420
atttgctatt	tgggtactac	tacctataat	cctcaaatga	tcacgatgc	tttgcacttg	480
cccaggttgg	tgtttcccat	tactacagt	actgtgggat	atccggcgga	atctccgaaa	540
caggtagacc	gtctgccgat	agagggcatt	atacatgaag	agagctatca	cgattatacc	600
gccgaagata	taaaccggtt	atatgcttat	aaggaatctt	tgcttgagaa	caagttat	660
atagaagaga	atcagaaaga	gactctggcc	caagtattca	cggatgtccg	ctatacaaag	720
aaggataatg	aatttatgtc	tgagaatctg	ttgaaggtag	ttcgccggca	gggctttatg	780
gattaa						786

<210> 3860

<211> 522
 <212> DNA
 <213> B.fragilis

<400> 3860
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 ttgaatggta aggtctctgc tgccattaat cggaaactat accggaactt cagacagaac 180
 ggtctggaaa tcagtcgga gcaatggacg gttcttattt ttctctggga aaaagacgga 240
 gtgacacaac aagagttgtg caatgcaact tttaaagaca aaccgagtat gacccgcttg 300
 attgataata tggaacgcca acatctgggtg gtacgcatct ccgataaaaa agaccgccgt 360
 accaatctga ttcattctgac cagaacagga aaagagctgg aagaaaaggc ccgtatcata 420
 gctaaccgga cccttaaaga ggcgctgcat ggcattcacag tcgaagagct aagcgtaagc 480
 caggaagtat taagaaaaat attcttcaac accaaagatt aa 522

<210> 3861
 <211> 681
 <212> DNA
 <213> B.fragilis

<400> 3861
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 gaaatgctgg atgaagagaa agacgcagta aacgccttta ttaaaaaaca caatatccag 180
 actatttcgg agagtgactt tgaagcaaac ggatataaaa cggatacgac caagaacgaa 240
 tacgtggcct tctcaaacgg agtctacatg caaattgtgg ataagggtat agttaccgat 300
 aaaccggaaa atgactctat caagaataac aatattgtag ccgtacgctt tgtagagcac 360
 gacatcaagg cgaacgatac cacttgcttc aatgtggtgc ttcccgggtt cgaaaattat 420
 ccgaattact atacttatcc ggacgttttc cgttatgtgg ataacgggtac ttcagtagcc 480
 ggtgtattta cagaggggtc gatgtatgcc aaatatggta cgacggatgt tcctcccgga 540
 tggctgcttg ctttaaagta tgttaccaat tatgcccatg tgagaatgat tgtaccttcg 600
 aagatgggac atcagagtgc aaaccaatat gtaaaccctt atttctacga tattcgtaaa 660
 tttcagaaag cattgaacta a 681

<210> 3862
 <211> 465
 <212> DNA
 <213> B.fragilis

<220>
 <221> unsure
 <222> (305)
 <223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3862
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 gcggaacgta atgccttcag cgaagcggtt aagaacgccg gaccgaagat tctcgagccc 180
 atttatgatg tggaagtctt cgtaccgtcc gataagatgg gtgacgtgat gggtagacct 240
 cagggacgcc gtgccatgat catgggtatg agcagcgaaa acggttatga gaaactgggtg 300
 gctanagtgc ctttgaaaga gatgtcttct tattcaaccg ctcttagttc gcttaccgga 360
 ggccgtgctt cgttcattat gaaatttgca agttacgaac tggttccgag tgatgtgcag 420
 gataagttaa taaaagactt cgaatccaaa caaacagaag agtaa 465

<210> 3863
 <211> 1584
 <212> DNA
 <213> B.fragilis

<400> 3863

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aagatgcgta	aagaacaatt	taatacatcc	gtgcgaaatg	ctttgtttca	ggtttcaaag	180
gatgtagagt	atgatgaaac	gcaacgttgg	ctggttagagg	atatcactga	agcggaaacgc	240
agagcactgg	ctcagtcttc	ttctactacc	gaacagaaaa	acggtttaat	tcagcaatcg	300
gagcgttata	ggttcaagtc	accggacgga	accctgtatt	cggagtttga	actgaagatg	360
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cgttttctgc	tcgacgatgt	ggctttgcgg	atgatttaca	aggcaagcga	taaatcgatt	540
ggcgaacggg	tgaactttta	gaagctggat	aattatctga	aatcgaactt	tattaataat	600
ggtgtagagt	tgctctacca	tttttcgggtg	atcgataaag	atggacgtga	agtatatcgt	660
tgctcggact	acgaagacgg	agggagtgaa	gactcttata	cgcaacctct	gttcagaaat	720
gatccgcctg	cgaagatgag	tattgtgaag	gtgcactttc	ccggttaagaa	agattatatc	780
ttcgactcgg	ttagttttat	gattccttcg	atgatattca	ctatcgtact	gctgattaca	840
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cagatgctga	aagaccccg	agtcgggaag	tcgccgcaga	tgttccagca	tatatcgga	1020
gtcatcaatg	atgaaacgaa	gcggttgaga	ttccaggtgg	agaagtgct	tcagatgtct	1080
atgttcgaca	ggcagaaagc	aacgctgaag	atgaaggaa	tcgatgccaa	tgagttgatt	1140
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aaccttgagg	ctaccaatcc	tggttatattt	gcggacgaaa	tgcatatcac	caatgtgata	1260
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attaaaaaag	aaaacctgaa	gaaggtgttt	gataagttct	atcgcgtag	tacaggtaat	1440
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cataagggaa	ccatccgggc	agagagtga	ctgaatgtag	gaactaaatt	tattattgca	1560
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<210> 3864

<211> 1467

<212> DNA

<213> B.fragilis

<400> 3864

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tggtttgttc	ccattgttcc	tttaaaatat	gaggacaaaa	cgttaatcgt	acaagttccc	180
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tataaggtta	taggcgacgg	cacgaagtgt	atgtacaatg	tgctggtgga	caaaagttca	300
gggggaacgg	tgaaccagga	gtctactacc	cgtctacgg	ctattcccca	atccggactt	360
ccccgtgttg	atgaaaggaa	agctccgggc	ttgctgcgtg	caccggccgt	tcaggatctt	420
gatccccatc	taaatccgaa	ctataacttt	gagaccttta	ttgaaggata	cagtaataag	480
ctttcaagaa	gtgttgccga	agctgttgcc	gagaatccgg	caaaaacagt	cttcaatccg	540
ctgttcctcc	atggagcatc	gggagtagga	aagaccatt	tggccaatgc	catcgggtacc	600
cgcatacaag	agttgtatcc	ggacaaaaga	gtgctttatg	tttcagcaca	tttatttcag	660
gtacaatata	ccgattccgt	acgtaacaat	acaacgaatg	acttcatcaa	cttctaccaa	720
acaatcgatg	tattaattat	tgatgatatt	caagaatttg	cagggtgtc	caaaacacaa	780
aacactttct	tccatatctt	taatcaccta	catcagaatg	gcaaacagct	gatattgact	840
tccgaccgtg	ctcctgtatt	attgcagggt	atggaagagc	gcttactgac	ccggtttaaa	900
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aataaaaattc	atcgggatgg	attacaattc	ccttcggaag	taatcgacta	tattgtctgag	1020
aatgttaatg	aaagcgtg	tgacctggaa	ggtattgtca	tttccatcat	ggcccactct	1080
accattttaca	ataaagaaat	cgatctggac	ctggcacaac	gcattgttcg	caaagtcgtt	1140
cgtttgtgaga	caaaagctgt	cactatccaa	gatcatcatca	acgtagtttg	caagcacttc	1200
gatttgagag	catctgctat	ccataccaaa	tcaagaaaaa	gggaagtcgt	acaggcacgc	1260
caagtagcca	tgtattttagc	taaaacacat	acagacttct	ctacttccaa	aattggaaaa	1320
ttcataggca	ataaagatca	tgccaccgtt	ttgcatgcat	gcaaaacagt	aaaagggcaa	1380
tgtgaggttg	acaaaggatt	ccgatcggat	ctggaaaaaca	tagaaacttt	actcaagaaa	1440

agaaacgtga gtaacggtga acggtag

1467

<210> 3865
<211> 666
<212> DNA
<213> B.fragilis

<400> 3865
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cctccgggaa agttgatatt caatgcattc aatttatgtc cgtttgataa agtaaaagta 180
gtcattatcg gtcaggaccc ctaccatggc cccggtcagg cacacggcct ttgtttctcg 240
gtgaatgacg gagtagcctt tccaccttct ctgggtgaaca ttttcaaaga aataaaagaa 300
gatatcgga cgccagcccc gtccaccggc aacctgacaa gatgggctga acagggtgtc 360
ctgttgctga acgccaccct gacagtacgc gccaccagg cgggttcaca ccaacgtcgc 420
ggttgggaag agtttacaga tgctgccatc cgtgtcctgg ccgaagaaag agaaaatctg 480
gtattcatcc tttggggaag ttatgcacaa aagaaagggtg ccttcattga ccgtaacaag 540
catttggtac tcagttcggc acatccttct cccctctctg cctacaatgg cttctttggg 600
aataagcatt tcagtaaaac aaacgaatac ctgaaagccc atggaaaaac agaaataaac 660
tggtaa 666

<210> 3866
<211> 531
<212> DNA
<213> B.fragilis

<400> 3866
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aaaaaagacc tgattgaatg ggttcttttg aactcggagt tattgatggg acataagttt 120
tattgtacag gtaccaccgg tacgttgata caggaggcat tgaaagagaa acatcccgat 180
gtggagtggg attttactat cctgaaatcc ggtcctctgg gcggcgacca gcagatggga 240
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cagccgcacg atacggatgt gaaggcactg acccgtctgg caagtgtgga aaacatcgtc 360
ttttgttgca accgttccac tgccgatcat attatttcaa gtccgctctt ccttgatccg 420
gactatgaac ggacacatcc ggactactcg ggctatacga aacgtttcga gaataaaccg 480
gtggtgaccg aggcggtaga atcgggtgaag aaaagaaaga gaaagaaata a 531

<210> 3867
<211> 570
<212> DNA
<213> B.fragilis

<400> 3867
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gcctactact atgtaaaacg cgaagaatgg tcgcaggaaa tcgtactcga tgtgttcttg 180
aaactctggg aacagcgcag ctgccttccc gaagtcaaaa gcattgagga ctattgcttc 240
atattggtta aaaacgcttc actcaactat ctggagaaag aaaacaggcg taccacggta 300
tctaccgaga cattgccgga acccgaagca caaagcgact caccgaaga atcgatgatc 360
agtgaagagt tgtttgccat ttatgtgaaa gactcgacc gcttgcccga acgttgacga 420
gaggtattca tccgcacccg ggaagagaag caaagctatg cacaggtagc agaagaactg 480
ggtatcagca ccaagaccgt agacgctcaa ctccagaagg caaccatccg gctgaaagaa 540
gcaatatcga tgggtgaataa tgatcgataa 570

<210> 3868
<211> 540
<212> DNA
<213> B.fragilis

<400> 3868

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ccggaactga	atctggatac	tgtcttttctg	gaagaagccg	ccatgctgca	tgatattggt	180
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ggatatctcg	gagccgggct	tgtccgtaag	gaaggtttcc	ctcgacacgc	attagtctgt	300
gaacggcata	ccggggcggg	acttttactg	aaagatatta	tggatcaaaa	acttcctgtc	360
ccccatcgcg	aaatgttgcc	ggtgagtatg	gaagaacaag	tgatttgctt	tgccgacaag	420
tttttttcga	aaacccatct	cgaccgtgag	aaaactgtgg	agggggctcg	taagagcatc	480
gccaaagtatg	gagatgaagg	tttgcaacgt	tttaacaatt	ggtgtaagct	atttcttttag	540

<210> 3869

<211> 1128

<212> DNA

<213> B.fragilis

<400> 3869

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aaacctttgc	ttgacctgaa	acagacagaa	ctgggcatca	aacaaattaa	agagttcttc	180
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aaaggaatgg	gtatcaatga	tgacctgaac	ggtatagaac	gtcctgtctc	atttcccatc	300
aaggacctgg	gcatgacaca	agcgggaagta	gtacactcac	tcgctaaatg	gaagcgccctg	360
accttggcag	attatcacat	tgaaccgggt	tatggtattt	atacggacat	gaatgccatc	420
cgctcggacg	aagaactggg	caatctgcat	tcactttatg	tagaccagtg	ggactgggaa	480
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ggcatcggtt	gcaagctgag	tgatggcaag	aaacatgacg	gacgcgcccc	ggactatgac	780
gactatacca	gcaaagggtt	gaacgacctta	cccggactga	atggtgacct	gttgctctgg	840
gacgatgtgc	tgcaacgctc	cattgagttg	tcctcaatgg	gtatccgtgt	agacaaagag	900
gctctttttac	gccaggtgaa	gcaagagaat	caggaacaaa	gactggaact	ctattttccat	960
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ttgtgcatgt	tctacttacg	caaagctcat	atcggcgaga	ttcaggcaag	tatctggcca	1080
gaagaaaatgc	gtcgtgaatg	tacagccctt	aatatacacc	ttattttaa		1128

<210> 3870

<211> 636

<212> DNA

<213> B.fragilis

<400> 3870

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acgcaaacc	tgctcagcta	tatggaggag	atccgtttca	aaaagaaaga	agtcacgcgc	180
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agcatagcct	actgtattcc	gggatcaacc	ctgaacaatc	tttatgcttc	atcgctcgga	420
ctcgccaacc	tgggacggca	actgatggaa	cggcaactgc	tcagcctcga	aaactggctg	480
atcagcgccg	gaagccccaa	agctaaagaa	cgttatctga	cccttatcaa	agaacatccc	540
gaactattac	aaaatgtgcc	tttaaaagcat	atagcctctt	atttgtggat	tacaccacag	600
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<210> 3871

<211> 1560

<212> DNA

<213> B.fragilis

<400> 3871

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gtttttgccg	gagatgttgt	tttaaaagta	tttgaaggga	aaccacgtat	caattctcct	180
catatcacag	gtaattatcc	ttcaactcca	tttatctttt	atattccgac	ttccggtcag	240
cgaccgatgc	agtggagtgc	ggaaaaactc	cccgaaggac	tggaaactgga	ttccaagact	300
ggaattatta	gtggagtctg	gacttccaaa	ggagattata	ctgtaaccct	gaaggctgag	360
aatgcattag	gtgtaagtgt	gaaacaattg	gtcatccgca	ttggtgatga	attattatta	420
actcctccaa	tgggctggaa	cagttggaat	actttcggac	agcatctgac	agaagaattg	480
gtcttgcaaa	cggcggatgc	gatgataacg	aacggaatgc	gtgatttagg	atattcctat	540
atcaatatag	atgacttttg	gcagttgccg	gaacgggggg	ctgacggaca	tctgcagatt	600
gataaaacta	agttttccacg	tgggataaaa	tatgtagctg	attatctgca	cgagcgtggg	660
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tacggatatg	aagaaacaga	tgcaaaagat	tttgccctctt	ggggagttag	cttggtgaaa	780
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gatatgttag	tggtcggaat	agatggaaag	agtatgagta	ttggttatga	gtcgggaagga	1140
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ttcgagcaga	tatactgttt	ggacagccat	ttgacaaaaga	gtggtagtga	ttcaaaagaa	1500
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<210> 3872

<211> 504

<212> DNA

<213> B.fragilis

<400> 3872

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cggcgcagct	atgcacctta	ttcgcacttt	tccgtaggag	cggcagcact	gctggccaac	180
ggtgtggtag	tgacaggaac	caatcaggag	aatgcccgtc	atccgtccgg	actctgtgcc	240
gaacgcacca	cgctatttta	tgccaactcg	cagtatcccg	accaagctgt	ggtgacactt	300
gccatcgctg	cacgtaccga	gaaggacttt	atcgacactc	ctatcccgcc	ctgcgggtgt	360
tgtcgccagg	tgattctgga	aacagagaaa	cgatataaac	agcccatccg	tatattgctt	420
tatggcaaga	agtgtatcta	cgaagtacaa	agcatcggac	atttattacc	cctgtcattt	480
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<210> 3873

<211> 1281

<212> DNA

<213> B.fragilis

<400> 3873

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<210> 3874

<211> 246

<212> DNA

<213> B.fragilis

<400> 3874

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gacgaagaag	ataaaatgtt	aaaagaggtg	aggttaccaa	ttgggcaagt	gcaaacagat	180
atcccattaa	cctgtctatt	attcaaagag	tacgttccac	gcaatgatca	gcttaaaaac	240
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<210> 3875

<211> 990

<212> DNA

<213> B.fragilis

<400> 3875

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<210> 3876

<211> 642

<212> DNA

<213> B.fragilis

<400> 3876

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<210> 3877

<211> 864

<212> DNA

<213> B.fragilis

<400> 3877

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<210> 3878

<211> 1437

<212> DNA

<213> B.fragilis

<400> 3878

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gtgtggaaaa	gtactgacct	gacacaagca	ttcattttata	ctgcgttggc	aaatgctacg	180
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gatgtgaatg	cagaattgat	agaccgttat	tatgatgccg	gatggaataa	gtatgaagat	300
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<210> 3879

<211> 1404

<212> DNA

<213> B.fragilis

<400> 3879

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attgaacgtt	ccgccatgat	gtatggaggt	acctgtccca	atatagcttg	cgtacccacc	180
aagcggctta	tccacgaagc	cgaaaagggtg	agttggctct	atcctaccga	ttacgagaag	240
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<210> 3880

<211> 900

<212> DNA

<213> B.fragilis

<400> 3880

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<210> 3881

<211> 903

<212> DNA

<213> B.fragilis

<400> 3881

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<210> 3882

<211> 471

<212> DNA

<213> B.fragilis

<400> 3882

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<210> 3883

<211> 1293

<212> DNA

<213> B.fragilis

<400> 3883

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<210> 3884

<211> 1254

<212> DNA

<213> B.fragilis

<400> 3884

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ggaatcgtga	gcagtgtcac	cccgccttcc	aagaatgggg	ttatttcatt	ctccgtgcaa	960
ttgaaagagg	ataacaacaa	gcggttgctg	tcgggactta	agaccgatgt	atacgtgatg	1020
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gagtacgatc	tgtttgtgat	gacttcggat	gatgaaatcg	taaaacgtaa	aatccagttg	1140
ggcgactcca	actttgaatt	tgtagaagt	gtgagcggat	tgaaccgggg	cgacaaggta	1200
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<210> 3885

<211> 1596

<212> DNA

<213> B.fragilis

<400> 3885

accgccatgt	gtattcaagt	acaacaaatc	acctatatcc	atccagacaa	agaagttctc	60
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gggtgctggc	aatcgacatt	gctgcaaat	atggccggaa	aattacaacc	gtcttcgggg	180
aacgtgctcc	gccccgacga	cctctattat	gtgcctcaac	acttcgggca	atatgatgaa	240
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aacggaaatg	cctccatcga	tcatttcaac	atcctcgatg	acgactggaa	catcgaagaa	360
aaagccttag	ccgccctcaa	cggctgggga	ctcggaacaa	ggtccctttc	cgaatccatg	420
cacacactga	gcggtggaga	aaagacgcgg	gtcttcctgg	ctggcctgga	actgcaagag	480
ccttccgccc	tattgatgga	cgaaccgacc	aatcaccttg	acaaccaagg	acgcaaccga	540
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gctaccgttc	ggaactatac	gggcagtgtg	ctgcttgat	cacatgatga	atattttgca	1560
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<210> 3886

<211> 339

<212> DNA

<213> B.fragilis

<400> 3886

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cgttggggta	aggctgacgg	tctggagggt	gttccggaac	tgatagttga	acagaagttc	180
atgaaaatag	ctcctgatgg	aaaatctttt	gagatacttc	cgttacccat	ttaccaaagt	240
gataatgagc	gtactttttac	caagaaacat	tattttattcc	ctgtgccgca	aggacaacgt	300
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<210> 3887

<211> 192

<212> DNA

<213> B.fragilis

<400> 3887

ggttttgttca	tagttcttct	tttattaatt	tcactaaata	atataataac	agatgaagga	60
aaatattctc	aaatatcttc	cttcatcatt	tcaatcagta	atccgaataa	cctcaatcgt	120
tattcttatt	tcacaaaatc	cgtaattctt	attgtccact	ctcttttcgt	accgtcggca	180
gcagtcacct	ga					192

<210> 3888

<211> 585

<212> DNA

<213> B.fragilis

<400> 3888

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atagacgggtg	aagaccaggt	acgtatcggg	aagccgacaa	tgcctcactt	tacttatgcc	120
tttgattttt	ctttgggtta	tgaaggattc	actttgtccg	gtttacttta	tgggacaggt	180
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gaaaaccagt	tgaattattg	gagaccggac	aatacagggtg	cggattttcc	tagaatttcg	300
atcagttccg	gtgtaaaccg	aaataataat	aaggcaggat	cgactttctg	gatgcggaat	360
gcatcatatc	ttcgtctgaa	ggatttgcag	ttgagctatg	actttaaata	taaataacctg	420
aaaaaatgtg	actggttgca	gacgtgtcgt	gtgaatctga	gtggtagtaa	tcttttcact	480
atttcagggtg	ttagcaaatt	tttcgatccg	gaaacatcaa	gtaccagcgg	cgacggctat	540
cctgtacaaa	gagttttattc	aattgggtgta	acaatagggtt	tttaa		585

<210> 3889

<211> 480

<212> DNA

<213> B.fragilis

<400> 3889

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cagaacaaac	tgttcagtag	cctctatgtg	ctgggcacgg	ggcttgccat	tgccatgaca	120
atgatcattg	ccatcgtgta	ttatatataa	atagctccta	tctatccgga	agtgaaccgt	180

tcgctgacga	tgcggatgaa	aggggtaagc	gccatgcatg	tcaaaggagg	gggaaattca	240
tattcctggt	cttatgaaat	gctgaaagac	tggttctatc	cattgcaatc	ggcggagctg	300
gttaccgctg	taaacgaaca	ctttctgacc	cggaagggat	cttatataca	accggccggg	360
ggaggcgagc	aaataccggc	tctggtaaag	tataccgatc	ctaatttttt	tcggttggtc	420
gagtgtgaat	tactggatgg	gtcttcacca	cgaggctgga	aggatccgcg	ggggtgctat	480

<210> 3890

<211> 466

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (10), (11), (12), (13), (14), (15), (16)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3890

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gtccccgata	gatgtccct	ggccgatggg	tggagaaatc	gatatcatgg	aacgtctgaa	120
tcacgataca	atcgcttatc	agactataca	taccaattat	acgtacaatc	tgggtatcaa	180
agacaatccg	ttatcacact	ccgtaggtgc	gatcaatccc	gacgactaca	atgtatatcc	240
agtagaaatg	tatccggaca	gcattgcatt	ctatatcaat	gacacacata	ctttcaccta	300
tccccgcac	gaaacagaca	aagaagggca	gtttcctttc	gatcagcctt	tctatctact	360
gatcgacatg	cagttgggtg	gctcgtgggt	aggggctgta	gacccgaaag	aacttccggt	420
ggagatgtat	gtagattggg	taagattcta	tcagaaagag	aaatag		466

<210> 3891

<211> 216

<212> DNA

<213> B.fragilis

<400> 3891

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tacatttgca	ccgtttgtga	tttcattttac	gatccggaga	taggtgatcc	ggaaggcgga	120
atcgaacccg	gaacacagtt	tgaagatatt	cctgatgatt	gggtatgccc	tctgtgtgga	180
gttggaagaa	aagatttcga	accgtataat	ggctaa			216

<210> 3892

<211> 1272

<212> DNA

<213> B.fragilis

<400> 3892

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tttgaagtc	tccactttat	cgtaattgat	aaagtcgggtg	aacttcttct	ggcccttcca	120
gagatctatc	agttcgggaa	taaagtagat	gcccggtcc	acggtatgta	caaaaccggg	180
ctccaacgga	atggccagac	gctgcgactt	acggccgaac	tgcgtgctct	tgggctgtcc	240
gttatagccc	acccagagtt	caccagatt	ctccatgtca	tgcacgtcga	gccccatcat	300
gtgtcccagc	ccgtgaggat	agaacaaagc	atgtgcaccc	tcgcgcacag	cgtcttcggc	360
atttcccttc	atcagcccga	gtcctttcaa	accttcgacc	atcacacgtg	ccgacaagtc	420
gtatacatcc	atataaggaa	taccgggacg	aagtgttttc	accgactcca	ggtgcatggc	480
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agcgatggta	gcaaacgaaa	ggtcaccccc	tgccgcatgc	gccacggctt	ccatggctgc	720
cgatacttcc	cactcgcgca	tcccgggacg	caggatcttc	atggccgtaa	tgtgcatatc	780
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ctgcgcgatc	accgcacgga	taaacggcac	cgaacctcc	tgacgcgcgg	aaggcactcc	900
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ctgtcccttc	tgtaccgcct	tgtgcagata	gctcacaatg	tcggccgaag	gcatggtgat	1020
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atgatcgatg	gtcagttcat	caccgaatat	aatttcctta	tcttcatcaa	tgtcgattat	1140
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gcggaacgta	ttgtcctcgt	agttcaatcc	acactcgtcg	tttcccagaa	acaacagtac	1260
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<210> 3893

<211> 201

<212> DNA

<213> B.fragilis

<400> 3893

gcactgtctg	cgtcaaattg	gggcacttgg	acaattacct	ttttctcgg	gatgtcggtc	60
gaagtgggtt	tgctgccgtt	tggtccgcag	gagaaagcag	aaaacaggat	gaaagctgac	120
agtatgaaca	tagagtttct	tttcataatt	atgcttttgg	agtttaaagc	ctcaaaatta	180
atgattttca	ctgtagggtg	a				201

<210> 3894

<211> 213

<212> DNA

<213> B.fragilis

<400> 3894

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accttttagac	gtcactctga	cactattcat	cctaattctac	tgacacgcac	taaaacacaa	120
atcatcaaac	aggaagaaga	aaatgcatac	aagacgcata	taacatgcaa	taagatgcaa	180
catcgaccga	agatttccaa	taaatatgca	tga			213

<210> 3895

<211> 789

<212> DNA

<213> B.fragilis

<400> 3895

atgaaaacgg	cgatcaaatt	aattctgatt	tatctgggaa	tccagcttat	ttgcgggtggg	60
ctgatcggtg	ttcctttttac	tatcattgcc	cgtatgaatg	gtggggagcgt	agatgccacc	120
cgggttttcgg	agttgacatt	ggctccttcg	atgctgcttt	ccatggcagt	gatgtttttt	180
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ggttggttag	gcatttgtggc	cattactttg	ttggggccga	ttcttgagga	acttctgttc	420
cgtgggtggtg	ccactaaggc	attgcttgaa	cgctattctc	cccggaaagc	catcttcctt	480
tcggcactgc	ttttcggagt	atctcatttg	aatccggctc	agatagttgc	agccttcttt	540
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acaatcaggg	atgtgacggg	tacgactccc	tattatctat	tgatagcagt	ggcggctatg	720
gtgttcgtag	gctgttttct	tcggataaag	caggttacgg	ttccgggaac	gtggcggaaa	780
gatgaatga						789

<210> 3896

<211> 423

<212> DNA

<213> B.fragilis

<400> 3896

cgggaaccatc	aacatcagcc	tcaacaaccg	caatctgccg	gagctgcgca	tgagccgcga	60
cttcacggag	atgggtcgagg	aacatacgaa	gaacaaggcc	aaccaatcga	aagaatcgaa	120
agaggccatg	atgttctctca	agcagaagat	ggacgccgca	caaggcttca	tcgacgccgt	180

gaagcaacgc	cagaatacat	tgatgaccac	catgcaggcc	atcatcgacc	tgcaacgccc	240
cttcttcctc	gaaggcgacg	agtcattgct	ccgcccgatg	attctgaagg	acgtggcgga	300
acgcaccggg	ctggacatct	cgaccatctc	acgcgtcagc	aacagcaa	acgtgcaa	360
gaattacggc	atztatcccc	tgaagttctt	cttcagcgac	ggatacacca	ccgaagacgg	420
tga						423

<210> 3897

<211> 654

<212> DNA

<213> B.fragilis

<400> 3897

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ttctgttatt	cggtgtttaa	tatggggcgt	gatttcggtc	atggcttttc	cgaaggggatg	120
aagataagtc	attccggtaa	tcaaagtgtg	gaacaggcta	tcaacttttcg	gattgccaca	180
ctgatgccc	aggatttttc	gtccttttaa	gattctgtct	ataatgaaa	gaccggctct	240
tatgtccccg	ttgcctatac	gcagatgggt	acgaatgtga	aagtcgacag	gagtacctgg	300
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gtgcttttta	ttcagctgat	tgtagctatc	aataaatcgg	atatttttaa	ttggaagaat	420
gtccgctcgt	tgcatgggtt	gggagtcgcc	ttgttgctga	actttattag	tgaggcagtg	480
ccggccctga	tgaatgatta	tgagttgtct	tcagtcttct	cgttgtccgg	atattctatg	540
gagacaagca	tagattctgt	gatgctggtc	attctgggac	tggtttcact	aattgtaggc	600
gagggtattcg	ccatcgggtt	gaagatgaaa	gaagaacaag	atcttactat	ctga	654

<210> 3898

<211> 915

<212> DNA

<213> B.fragilis

<400> 3898

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cttactcctg	tcatgggaga	tcagtgtccg	agttcatggg	gctcgtatgc	cggtgccacc	180
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gagtatgact	tccccatatg	ttatgacttt	ccggtgggac	atgtgacaga	gaacctacca	840
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<210> 3899

<211> 195

<212> DNA

<213> B.fragilis

<400> 3899

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agcagggtc	tgcgtcgtt	atatgtctct	ttgctgaaca	taatgggtata	tattaaagtt	120
atgatggcaa	agataggaac	aaaggatgaa	ttgacaaagg	agataaagca	aataagattc	180
acagcagagc	aataa					195

<210> 3900

<211> 1833
 <212> DNA
 <213> B.fragilis

<400> 3900

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aagctccaac	aacacttctc	ctttggtatt	gagtactttc	accttaagta	tgtccttctt	120
cttttcaatc	accattaccg	ttgcactttt	catgctataa	ccgccaccga	taatcaccgg	180
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ttcttttgaa	gcgagctcac	gcttcaaaaa	tcctacctgg	tcattacgca	gcttcgtaaa	420
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cccctttatc	tgttcgcaca	atgcctgaaa	cgtcttcgat	tgtttatgca	ggtcgttgaa	780
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acctcgtact	ggattctgaa	gatagggttt	ggtacggcaa	atccgattct	cgggtaccgc	1140
catccgtact	tctaccacaa	aaggacgatg	atcggacgcc	agaggctcat	cgatcaccgg	1200
ggccgagttg	acaacaaaag	taggcgtttc	ctgtttcaga	gcaatcaggt	agtcgagcgt	1260
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cagcgtgcgt	gcctcttcac	gtcccggaa	ggcgaagggt	tgacacacga	gcggagtcct	1560
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ggctacacgc	tgataattgc	atataccgtc	catgccattg	gcgttacgga	cgttgttaggt	1800
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<210> 3901
 <211> 1941
 <212> DNA
 <213> B.fragilis

<400> 3901

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<210> 3902

<211> 567

<212> DNA

<213> B.fragilis

<400> 3902

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<210> 3903

<211> 474

<212> DNA

<213> B.fragilis

<400> 3903

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<210> 3904

<211> 645

<212> DNA

<213> B.fragilis

<400> 3904

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<210> 3905

<211> 1839

<212> DNA

<213> B.fragilis

<400> 3905

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<210> 3906

<211> 1680

<212> DNA

<213> B.fragilis

<400> 3906

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<210> 3907

<211> 1002

<212> DNA

<213> B.fragilis

<400> 3907

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<210> 3908

<211> 558

<212> DNA

<213> B.fragilis

<400> 3908

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<210> 3909

<211> 1581

<212> DNA

<213> B.fragilis

<400> 3909

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<210> 3910

<211> 1689

<212> DNA

<213> B.fragilis

<400> 3910

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<210> 3911

<211> 1728

<212> DNA

<213> B.fragilis

<400> 3911

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<210> 3912

<211> 273

<212> DNA

<213> B.fragilis

<400> 3912

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<210> 3913

<211> 1548

<212> DNA

<213> B.fragilis

<400> 3913

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<210> 3914

<211> 1491

<212> DNA

<213> B.fragilis

<400> 3914

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<210> 3915

<211> 243

<212> DNA

<213> B. fragilis

<400> 3915

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aaaacgggaa	aggccaaagc	gattcgtttc	tctacccttg	aggcgatctg	tagagtgtcta	180
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<210> 3916

<211> 1473

<212> DNA

<213> B. fragilis

<400> 3916

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gaatccggtt	atcttcttcc	aacactatgc	cgaagatata	gccgaagact	tgcagggtcaa	1440
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<210> 3917

<211> 675

<212> DNA

<213> B. fragilis

<400> 3917

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<210> 3918

<211> 1170

<212> DNA

<213> B.fragilis

<400> 3918

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<210> 3919

<211> 1047

<212> DNA

<213> B.fragilis

<400> 3919

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<210> 3920

<211> 438

<212> DNA

<213> B.fragilis

<400> 3920

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<210> 3921

<211> 393

<212> DNA

<213> B.fragilis

<400> 3921

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<210> 3922

<211> 543

<212> DNA

<213> B.fragilis

<400> 3922

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<210> 3923

<211> 708

<212> DNA

<213> B.fragilis

<400> 3923

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<210> 3924

<211> 693

<212> DNA

<213> B.fragilis

<400> 3924

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<210> 3925

<211> 438

<212> DNA

<213> B.fragilis

<400> 3925

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gagaagaaga	tggacaatgc	cgtaggtaca	tttaaccattt	ccatccgtcc	cgaaggagcg	300
aaaacgcgag	tgatccggag	cctgaagtgt	aagaaacaga	tgattcgccc	ggcgggattat	360
gccgctttcc	gtcaactgat	gacagagtac	ggggcggtgg	acgggctgac	gctggtgtac	420
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<210> 3926

<211> 1698

<212> DNA

<213> B.fragilis

<400> 3926

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<210> 3927

<211> 1656

<212> DNA

<213> B. fragilis

<400> 3927

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<210> 3928
 <211> 327
 <212> DNA
 <213> B.fragilis

<400> 3928
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 tcggaaaata atttgataaa aaacagaaca aacgaaaaaa acaaccaatt cattttccgt 300
 aagatttcgt atctttgcag taaataa 327

<210> 3929
 <211> 219
 <212> DNA
 <213> B.fragilis

<400> 3929
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 ctagcaaaaa tactggggca tactgatata tccataacaa gaacactttg cacaggtgct 180
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<210> 3930
 <211> 1395
 <212> DNA
 <213> B.fragilis

<400> 3930
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<210> 3931
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 <212> DNA

<213> B.fragilis

<400> 3931

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ccacaggaac	gtggatattc	tcaaggcaaa	aagtcttatg	acaatattca	caataaaaaat	180
gtgtatgtag	atcctttacc	gcacaagtac	attcactatc	acaaaccgca	tatttcaaag	240
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<210> 3932

<211> 1410

<212> DNA

<213> B.fragilis

<400> 3932

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<210> 3933

<211> 2142

<212> DNA

<213> B.fragilis

<400> 3933

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cattttattg	aattttcaga	aaccggtaga	aaggggtttt	atgtaggaaa	aaggaaagaa	1860
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<210> 3935

<211> 225

<212> DNA

<213> B.fragilis

<400> 3935

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acattgcaga	atccgatcgc	aagcaaacat	actaaaacaa	ataacttttt	catgggtattc	180
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<210> 3936

<211> 510

<212> DNA

<213> B.fragilis

<400> 3936

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<210> 3937

<211> 1176

<212> DNA

<213> B.fragilis

<400> 3937

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<210> 3938

<211> 504
 <212> DNA
 <213> B.fragilis

<400> 3938

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ggacgactga	ccaattccac	tcaggaggta	ttggagggaac	gcatcgagc	acttgaaggg	180
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ggaaacccca	attccaatat	tatcgatatg	gatgccgtag	ctgccattgc	ccataaatat	480
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<210> 3939
 <211> 183
 <212> DNA
 <213> B.fragilis

<400> 3939

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<210> 3940
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 <212> DNA
 <213> B.fragilis

<400> 3940

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tacaatctaa	acacctctat	tgcttcacat	ataaatttat	ctcagcaaac	ccggtataat	180
tatccggagt	cagacagttt	attctga				207

<210> 3941
 <211> 999
 <212> DNA
 <213> B.fragilis

<400> 3941

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cagtttaccg	atgttcatta	tatctataat	gatcctcggt	cggatgtatc	gatcgaacgt	180
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tatggtaaac	cggcggaaga	aggaatgcgt	acagtgtgta	atctggtatc	taaaagaaaa	300
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999

<400> 3942

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<400> 3943

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<210> 3944
<211> 183
<212> DNA
<213> B.fragilis
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<400> 3944

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tcgtgcatct	tagcaccaag	tgcaatatgt	ttctcggtaa	atggagtggg	tttcatgaaa	180
tga						183

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<210> 3945
<211> 1338
<212> DNA
<213> B.fragilis
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<400> 3945

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ctactcggcc	tgtcaccac	agtcagtgcg	caaccgacac	accgaataaa	gggaactgtg	180
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<210> 3946

<211> 705

<212> DNA

<213> B.fragilis

<400> 3946

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attcggcctg	tatcggccaa	taaaggttct	tatttccaca	acttcattac	cgcctttg	420
gttacacttt	ccaatccgct	tattattttt	cttttcacg	gtctgtttgc	ccgttttg	480
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aatttgcg	gtatctggat	tttgaaccgg	gtgattggca	gtatcgtgat	ggcagtatcc	660
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<210> 3947

<211> 312

<212> DNA

<213> B.fragilis

<400> 3947

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gaaacgtttg	gtaagagcga	gtatagaaag	aatttgctct	atatcatcgt	ccgtactaaa	180
agtacaggta	aaacggctct	tttgagttg	tgcacccgaa	ataatgaaat	gaacatcaaa	240
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<210> 3948

<211> 321

<212> DNA

<213> B.fragilis

<400> 3948

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cccgttacgg	acacagaaag	aaagtatgtg	tacggaatac	ttggcattgc	caaattgttc	180
gggtgcagtc	tgctaccgc	caaccgtata	aagaaaagcg	gaaagataga	caaagccatt	240
acgcaaatag	ggcgcaagat	tatcgtggat	gcggaacttg	cccttgaact	ggctggaaag	300
aaaaccggag	gacgaaaata	a				321

<210> 3949
 <211> 1329
 <212> DNA
 <213> B.fragilis

<400> 3949
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<210> 3950
 <211> 807
 <212> DNA
 <213> B.fragilis

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 ggggtagtagt acaatacttc gactaaatat ctgaagaact ttaaaaagat tatecttctt 180
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 gcaatttctc gcttgggtcca ggtgcgtgat acttttattt tttgttgctt taccgggctg 360
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 aagtggatca ggaaagaacg tcagaagacc aagattatat gtaatatccc tttgagggat 480
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<210> 3951
 <211> 228
 <212> DNA
 <213> B.fragilis

<400> 3951
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<210> 3952

<211> 996

<212> DNA

<213> B.fragilis

<400> 3952

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<210> 3953

<211> 189

<212> DNA

<213> B.fragilis

<400> 3953

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<210> 3954

<211> 1296

<212> DNA

<213> B.fragilis

<400> 3954

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cctgccaaagt	ggatcatgac	tgcaaggcaa	tacgtgctga	atatctacac	agagaaccga	1260
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<210> 3955

<211> 2241

<212> DNA

<213> B.fragilis

<400> 3955

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<211> 3336

<212> DNA

<213> B.fragilis

<400> 3956

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<211> 207
 <212> DNA
 <213> B.fragilis

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 <213> B.fragilis

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<211> 213

<212> DNA

<213> B.fragilis

<400> 3962

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<210> 3963

<211> 1065

<212> DNA

<213> B.fragilis

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<211> 2502

<212> DNA

<213> B.fragilis

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<211> 1539

<212> DNA

<213> B. fragilis

<400> 3965

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<210> 3966

<211> 1581

<212> DNA

<213> B.fragilis

<400> 3966

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<211> 849

<212> DNA

<213> B.fragilis

<400> 3967

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<210> 3968

<211> 2625

<212> DNA

<213> B.fragilis

<400> 3968

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<211> 288
<212> DNA
<213> B.fragilis

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tatagggttg ccttatgtaa tgaatgtgtg aaaaatgaaa tttattgtgc tttgacacta 240
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<210> 3970
<211> 195
<212> DNA
<213> B.fragilis

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cattatattc tgatttctac tttttttgat ttcttggaa taatatttat ttgtattttt 180
gatctatata tataa 195

<210> 3971
<211> 969
<212> DNA
<213> B.fragilis

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<210> 3972
<211> 321
<212> DNA
<213> B.fragilis

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ctagcggaga gacagggtt cgaaccccggt gtacctcgca gtacaacggt tttcaagacc 180

gccgcaatcg	accactctgc	cacctctcca	gaactacggt	taagtagtgc	ttttctctta	240
aagcgctgca	aaggtacgaa	tcatttttta	acttgcaa	tattccgcaa	aaaaatatta	300
gaaaagtata	tttggaagta	a				321

<210> 3973
 <211> 561
 <212> DNA
 <213> B.fragilis

<400> 3973						
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<210> 3974
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 <212> DNA
 <213> B.fragilis

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<210> 3975
 <211> 252
 <212> DNA
 <213> B.fragilis

<400> 3975						
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<210> 3976
 <211> 198
 <212> DNA
 <213> B.fragilis

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 <212> DNA
 <213> B.fragilis

1565

<400> 3977

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<210> 3978

<211> 1077

<212> DNA

<213> B.fragilis

<400> 3978

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<210> 3979

<211> 927

<212> DNA

<213> B.fragilis

<400> 3979

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<210> 3980

<211> 498

<212> DNA

<213> B.fragilis

<400> 3980

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<210> 3981

<211> 1599

<212> DNA

<213> B.fragilis

<400> 3981

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<210> 3982

<211> 774
 <212> DNA
 <213> B.fragilis

<400> 3982

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tgtcctccgg	gtggaatatt	ggccatcggc	acaatgaaga	ttcccaatgc	ggacactcca	180
agggactttt	tcattgcatt	ggacaatgga	gacaatgtac	ttccggcaga	tacggccgat	240
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atggggagaag	agaaacccgg	atatgagaac	ggtaaaatat	tcacgataga	agatataattg	360
acgaaagaga	tcatccact	gacggaagct	acagcagaca	gcattggaga	cgaccgtatc	420
aacgtcacag	cgcattgcact	tacgaaagat	tatctgacca	tcgaatatca	atatctgggc	480
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ataaaagatg	acggatatat	ctatctggag	ttccggcata	atgcctttaa	tgactcccc	600
aatcaattgg	gttcgagcct	tgtttctttc	aagctggata	gtatagccga	gcaattggcg	660
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<210> 3983
 <211> 1254
 <212> DNA
 <213> B.fragilis

<400> 3983

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aatccggatg	aagaaatagg	tgagggtgct	cataagtttg	atgttcagaa	gttcgggttg	600
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<210> 3984
 <211> 1020
 <212> DNA
 <213> B.fragilis

<400> 3984

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gtttttttat	tgttctctaa	atcaacttct	aataatagta	caaatccacc	tttgacagat	180
gttttgactg	atagcatttc	tccgatagta	tcagcttgct	ctgggtgaaat	tggagtggca	240
attattatta	ataacacaga	tacagttaaa	gttaatgata	agagtgtata	tcctatgatg	300
agtgtattta	aggttcatca	ggcattagct	ctttgcaatg	attttgataa	caaagggatt	360

tcacttgata	ccttagtaaa	gatagatagg	aatagacttg	attcaaagac	ttggagtcct	420
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actattgctc	aaagtgataa	taatgcaagc	aatctgatgt	ttaaagatat	ggtcaatgtt	540
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acagaagagg	aaatgtcggc	tgaccacgat	agggccttact	ttaattatac	atctcctctt	660
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aatgggtatc	ttgcagctca	caatgatgtt	gcctatatat	gcctgcctaa	taatgtctgc	900
tatacttttag	cgatatttgt	taaggatttc	aagggtaatg	aatcacaagc	atcacaatat	960
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<210> 3985

<211> 561

<212> DNA

<213> B.fragilis

<400> 3985

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aagaagattt	tgtctattct	tgtattggcc	attgcagccg	tccaatttgc	atttgcaggt	180
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<210> 3986

<211> 495

<212> DNA

<213> B.fragilis

<400> 3986

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acagtggcca	tgatgagcga	ctacctgaaa	gaacaggaaa	agatgggttg	gatgctgact	480
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<210> 3987

<211> 2310

<212> DNA

<213> B.fragilis

<400> 3987

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aagaagttga	agcaaccgct	tgtgctgggc	tatgtgggtg	ccggatttct	tgccagtcca	180
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<210> 3988

<211> 906

<212> DNA

<213> B.fragilis

<400> 3988

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<210> 3989

<211> 1188

<212> DNA

<213> B.fragilis

<400> 3989

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<210> 3990

<211> 741

<212> DNA

<213> B.fragilis

<400> 3990

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<210> 3991

<211> 1074

<212> DNA

<213> B.fragilis

<400> 3991

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 <212> DNA
 <213> B.fragilis

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 <212> DNA
 <213> B.fragilis

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 <212> DNA
 <213> B.fragilis

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<210> 3995

<211> 1272

<212> DNA

<213> B.fragilis

<400> 3995

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<211> 1041

<212> DNA

<213> B.fragilis

<400> 3996

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<210> 3997

<211> 837
 <212> DNA
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<210> 3998
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 <212> DNA
 <213> B.fragilis

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<210> 3999
 <211> 336
 <212> DNA
 <213> B.fragilis

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 <212> DNA
 <213> B.fragilis

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<210> 4001

<211> 1122

<212> DNA

<213> B.fragilis

<400> 4001

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<210> 4002

<211> 1740

<212> DNA

<213> B.fragilis

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<210> 4003

<211> 1056

<212> DNA

<213> B.fragilis

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<211> 438

<212> DNA

<213> B.fragilis

<400> 4004

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<210> 4005

<211> 831

<212> DNA

<213> B.fragilis

<400> 4005

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acccctacta	caacaggcga	aatgagcgat	gcgatgcgca	tctgtcgtga	agagcccgat	180

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gcagggtgatg	ccactctgct	ttattacctt	accgatgaag	cacaggaagg	caagaatgct	780
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<210> 4006

<211> 405

<212> DNA

<213> B.fragilis

<400> 4006

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accgcatgta	taggtccag	tgtaaccatc	tattttttcac	aaacatcctg	caaatacatt	180
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agtcatatca	ccgatgttac	gtatactcgc	catgccttgg	gcattgcagaa	aataaagatc	300
agacacgcca	ccgggtttgt	catgatagat	ccccaatcac	cccgggaact	gataaaagcc	360
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<210> 4007

<211> 486

<212> DNA

<213> B.fragilis

<400> 4007

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aatgataagt	gcaagaagct	tggttggaatt	agtatggctg	ctgcaacagc	acaacgttat	420
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<210> 4008

<211> 996

<212> DNA

<213> B.fragilis

<400> 4008

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<210> 4009

<211> 195

<212> DNA

<213> B.fragilis

<400> 4009

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<210> 4010

<211> 2418

<212> DNA

<213> B.fragilis

<400> 4010

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1578

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<210> 4011

<211> 2775

<212> DNA

<213> B.fragilis

<400> 4011

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2775

<210> 4012
 <211> 1035
 <212> DNA
 <213> B. fragilis

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<210> 4013
 <211> 348
 <212> DNA
 <213> B. fragilis

<400> 4013
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<210> 4014
 <211> 333
 <212> DNA
 <213> B. fragilis

<400> 4014
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 gctatgacag aaaatgataa aaagaaacag tatagaagtt tattcatatc aataatgttt 180
 tatttgccctg caaatgtagt taataacctg ctctatctac cacgattgtg gtataaaaaat 240
 gccttcaatg tgcgatttct ttccataccg gattcctcta tctttgccac atataaagat 300
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<210> 4015
 <211> 186
 <212> DNA
 <213> B. fragilis

<400> 4015

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cgcacattca	gcacaacagc	ctttcaagac	ataatttata	cttcgtacag	caaatccctc	180
gggtaa						186

<210> 4016

<211> 522

<212> DNA

<213> B.fragilis

<400> 4016

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aaagagttga	attttacatt	ggaaggtgta	caaggtgatt	taaagttgaa	atacggctct	120
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tcttttatga	aacaactgct	tgtttccctg	ggcgtttcca	tactctgcta	tgtagcttat	480
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<210> 4017

<211> 645

<212> DNA

<213> B.fragilis

<400> 4017

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acaatcaatt	atcgcatagg	gcaagccctg	aaaatattac	ggtcggaact	aaaggattat	600
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<210> 4018

<211> 1017

<212> DNA

<213> B.fragilis

<400> 4018

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<210> 4019
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 <212> DNA
 <213> B.fragilis

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 <211> 198
 <212> DNA
 <213> B.fragilis

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tttatcaata	caacacacgc aaagaagcac cgaagacttt catccccgat gcctctcgcc 180	
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 <212> DNA
 <213> B.fragilis

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<212> DNA

<213> B.fragilis

<400> 4022

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<210> 4023

<211> 636

<212> DNA

<213> B.fragilis

<400> 4023

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cgcgatttct	ttatctgggt	acttatcgct	accataccgg	cttttatcgt	gacttggctg	600
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<210> 4024

<211> 906

<212> DNA

<213> B.fragilis

<400> 4024

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tctcatcccg	gagtagagat	attcagtacc	cttactgaag	cccagttgcg	taatcgcac	180
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<210> 4025

<211> 1068

<212> DNA

<213> B.fragilis

<400> 4025

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<210> 4026

<211> 510

<212> DNA

<213> B.fragilis

<400> 4026

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gcatatgaat	atttcgctct	gcatctaact	gaccttaata	aaaatgcaga	aagtctatgt	180
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tatacattga	ctgaagccgg	tatcttattt	gaagaatatt	tgacagaatga	atataaacag	360
cgactcacga	ttatgatggg	tgaagttgta	tcactactga	aaaacaaaag	tgatgcagac	420
atccaagaat	atgtggagca	aaatataggg	aaatggggta	gtgaatttga	gcgagagtat	480
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<210> 4027

<211> 576

<212> DNA

<213> B.fragilis

<400> 4027

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<210> 4028

<211> 1203

<212> DNA

<213> B.fragilis

<400> 4028

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<210> 4029

<211> 1338

<212> DNA

<213> B.fragilis

<400> 4029

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acatggattt	tggaacattt	cggacgtaca	gagtttgagc	atgttgccag	tttcaatttt	180
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<211> 1014

<212> DNA

<213> B.fragilis

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<210> 4031

<211> 1218

<212> DNA

<213> B.fragilis

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<210> 4032

<211> 753
 <212> DNA
 <213> B.fragilis

<400> 4032

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<210> 4033
 <211> 1779
 <212> DNA
 <213> B.fragilis

<400> 4033

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<210> 4034
 <211> 1539
 <212> DNA

<213> B.fragilis

<400> 4034

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<210> 4035

<211> 1011

<212> DNA

<213> B.fragilis

<400> 4035

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<210> 4036

<211> 2040

<212> DNA

<213> B.fragilis

<400> 4036

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<210> 4037

<211> 516

<212> DNA

<213> B. fragilis

<400> 4037

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<210> 4038

<211> 1269

<212> DNA

<213> B. fragilis

<400> 4038

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<211> 1557

<212> DNA

<213> B.fragilis

<400> 4039

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<210> 4040

<211> 447

<212> DNA

<213> B.fragilis

<400> 4040

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<210> 4041

<211> 1143

<212> DNA

<213> B.fragilis

<400> 4041

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tatgcgtgtg	gaactaaaac	ggtttcggaa	gagaaatctt	atgatcgaat	aaccatgacg	180
acttatgaaa	acaagtatga	tgaaaataat	cgtttgtcag	aggtacaatt	gaccagaaca	240
tctcatcata	ggtatgaaga	agattctgaa	acaattgatt	taattgatga	taaaagcacg	300
tattattata	cgtatatcaa	caacgaagag	tttacggtaa	gaagaaagtc	aaagaggtcg	360
ggaaatatca	agattatgag	atatgtctcc	caaagggagg	aggtgttaac	attaaatgcc	420
caaggggata	ccattgatta	tttattgcag	aatattacg	ataaaaagtaa	actcaaatta	480
gtgtatgtta	gaaatataaa	caatgactat	gtactgcag	aagacaacga	ctatgaggaa	540
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attccccgta	cagacgagga	ctatgacatc	gtgtgcgata	tagagaaaat	ggcaggagat	720
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gacgaaaaag	ggaaaaagga	atthtatattc	gacgtgaca	tgaagttcac	aggtagtttc	840
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acggatattg	atagcactta	ttataagaat	gggaaagagg	taagatgcgt	ttatctttcg	960
gatacgtcta	aacgtattgt	actttctaaa	tatgataaat	ggggaaatat	ggttgagagg	1020
gtggaaaaga	caaagtattt	ttattcgcaa	gacggagagg	cattgatcaa	tgaaatgctg	1080
caagtagtga	gagagaatga	gaagaagaaa	gaaagtagaa	agcgattgaa	aatatcaaaa	1140
taa						1143

<210> 4042

<211> 273

<212> DNA

<213> B.fragilis

<400> 4042

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gctcaagtag	cggaacaaat	aaaatcgatt	ttcccactat	tctacataca	aggtagggtcc	180
tcaaggggta	tcattgatct	acgttgctcc	tcgttcttta	ttatgcagac	tgatatgtta	240
tataactaaa	aaagaaagtc	cttgaattat	tga			273

<210> 4043

<211> 570

<212> DNA

<213> B.fragilis

<400> 4043

ggtaaacacg	tgtttaggag	aatgaatgaa	ttagagctgt	cggaacgttg	caggcagggg	60
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cttcgttatg	ccggagacag	ggacatggca	caagacttgg	tacacgacgg	tttcctgaag	180

atttttcgact	ccttcgacaa	gtttacctgg	cggggtgaag	gctctctgag	agcatggatg	240
gagcgtgtaa	tggtgaatac	ggctttacag	ttcttaagaa	agaacgacgt	gatgaaccag	300
accacggcac	tggtatgaagt	tcccgaacg	tatgaagaac	cggatgcttc	ggctgttgaa	360
gcaataccac	agaaagtgtc	gatgcaat	attaatgaac	tccccgccgg	atatcgatcc	420
gtattcaatt	tatacacctt	tgaagataag	tgcacacaag	aaatcgacac	gatgttgggg	480
attaatgaaa	aatcttctgc	ctcacagctt	tttcgcgcac	aaagtgtatt	ggcaaagaaa	540
gtgaaagaat	ggttggtgac	caatggttga				570

<210> 4044

<211> 726

<212> DNA

<213> B. fragilis

<400> 4044

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gaagccaaag	gagggacagc	aaccgaccct	gaggaaatag	ttcgcatggc	cgtcagtcag	180
aaagctttct	tccggtaaaa	gggaggtatc	accttttccg	gtggagagcc	tacttttcaa	240
gcaaaatcgc	ttatcccaact	ttttaaaaga	ctaaagggaag	caggaatcca	tattttgcctt	300
gataccaatg	gcgggctatg	gaacaatgat	gtagaggaac	tattggaatt	gactgatctg	360
gttttattag	atatcaaaga	atttaatccg	gaacatcatc	agtctttaac	cggaagaagc	420
aacgagcaga	ccctgaaaac	cgcagcctgg	cttgaaacca	atcataaacc	attctgggtg	480
cgatacgtat	tagtgcccgg	ctacagtgc	ttcgaagacg	atatccggca	gctgggagag	540
catcttgga	cgtaccagat	gattcagcgt	gtagaatat	tgccttacca	caccttgggt	600
gttcacaaat	atgaagcaat	gaacaaagaa	tatatgctga	aaggagtga	agagaatact	660
ccggagcaga	tagaaaaggc	tgaaaaacta	ttcaggcaat	atttccggac	cgtacaagtg	720
aattga						726

<210> 4045

<211> 1164

<212> DNA

<213> B. fragilis

<400> 4045

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aagcccataa	ataaggatgc	aagcaatcat	gttcttacaa	acctagagaa	gttagagaaa	120
aagacagctg	aagaacgtct	aaaatttatg	gatgaagata	ggtatgaaga	aatgatcaca	180
aagtgggcat	atttttgttt	gaaggaagat	tcaataaaga	aatatgagga	tgtctttcga	240
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atttgcgaca	tttatcaatg	taaacattat	aaagattcaa	taggttattc	cgatattaat	360
aaagaattat	gcaaatttctt	gtataatata	ttcatcgatt	atataccatt	ccctaaaaca	420
tactatcttg	ttgcacccca	aaatataacg	ggctctttag	gaagtttggt	taatgatcat	480
gaaaaactaa	ggaatagatt	atgggaagat	tgggaaaaaa	gtataaagaa	aaaattggca	540
gtaaatatta	ctaataatga	gaacgataaa	tttaagaagc	atgtagatac	atttgatctt	600
tcaataataa	agcccctatc	tccagacaaa	attattgaag	ggtaagaaa	agaatattgg	660
ttatatttcc	aatatctagg	aattgataga	actttgatac	caaggatcca	cgctgcccc	720
ccttcaactg	tagcagatta	tgaatctact	tatatcaacc	atcttgagg	tgcctattca	780
gatgcgaata	aatcgtcaat	tacacaaatt	aatctcaatg	atgaaaatat	ggctatgtat	840
aaagcacatt	tcacagcatc	aagagaacaa	ttctatttgg	ctgaatcagc	tgcaatgata	900
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gctgtaacaa	agagtgcac	tcaatatcag	gtagaagaga	tgaattccgt	taaaccaatt	1080
attagctcaa	gagtattaaa	aggtatgtgt	tttcaattat	caaataagaa	ttaattgata	1140
tgggtaaaaga	aaaaaataaa	atag				1164

<210> 4046

<211> 408

<212> DNA

<213> B. fragilis

<400> 4046

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ctttggccgc	gcggaatgaa	aaaagaacat	ttaaagtatg	actattgggc	aaaggaactg	180
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tttgacagaga	tgtatcgaaa	agaacttgaa	acttctgata	aaacgtccga	gtttttatcc	300
cggatacgat	cctgtgaatc	agtgactctt	ttgtatgctt	cgaaggagcc	ggtttataat	360
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<210> 4047

<211> 1047

<212> DNA

<213> B.fragilis

<400> 4047

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gccctgtttt	catgtgcggc	cttttatata	ggtgacatgg	agttcataaa	gaaactctct	120
ttcagtcgga	tgattgtcgg	aatcattttg	ggcatgttgt	atgctaacag	tctccgaaac	180
aatcttcctg	agacgtgggt	accgggtata	cagttctgtt	caaaacgtat	tttacggata	240
ggcattatcc	tctatgggtt	taagttgact	tttcaggatg	tattggcggg	ggggctgccc	300
gcgatattga	ttgatactat	tgtagtaacc	ataacgattc	ttggagggtat	cttaatcggg	360
cgtatgctta	aaatggatcg	tggagtggcg	ttacttactt	ctatcggtag	tggaattttg	420
ggtgcagcgg	ctatttttagg	ggccgaatcg	accattcaga	caaaaccata	taaaacggcg	480
gttgctgttt	ctactgtagt	tattttcggg	actttgtcca	tgtttatcta	tcctatatta	540
tatagaaatg	gaacttttgt	gctttcaccc	aacgagatgg	ggatatttac	cgggtgctacg	600
ttgcatgaag	tggcgcacac	tggttggtgcg	ggaaatgcga	tgggggaagg	ggtttcggat	660
gttgctatta	tcgtgaagat	gattcgtgtg	atgatgttgg	tacctgtttt	gttgataacc	720
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ctattgccac	aaagtttaat	agcttttatc	aataatctgg	atactttctt	gctgactatg	900
gcaatgactg	cattaggtgc	ggaaaccagt	atcgacaaat	ttaagaaagc	tggtgccaaag	960
ccatttgtac	ttgcttcttt	gctgtattta	tggctaattg	tcggaggata	tttttttgga	1020
aaactccttg	ctcctgtctt	aatgtaa				1047

<210> 4048

<211> 1056

<212> DNA

<213> B.fragilis

<400> 4048

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ctcaatagaa	tatataatga	ttgggtaacc	aattatgctt	tttcttttga	caagcagaaa	120
ttcatcaccg	actttttacag	acagcacaat	gatacaaagg	ctttttgaagc	cgctatcctt	180
gaactggtac	ttgacaagca	gaaagaacaa	tacacattga	ttctcaatag	tctgaaaatc	240
gaaatagaaa	aaaatatacg	ggcttatgaa	acaaaaccgc	tgaatgatga	cgtcataaag	300
cgtgtgtgtt	ttcactacgc	agacaggcat	aattctgcaa	ttaaagacca	gttggagatt	360
accaccaagt	tgcacgagcc	tttgaatgac	gcataccaca	gatatgattt	cattgggtttt	420
cgggagcata	cggacgaaga	agaaatacag	gcagaaaagg	aatatgaacg	ctgcaaggct	480
gaatacgaca	aggaaaagaa	agaattggat	aaactttatg	aactgcaaaa	gcaagacagg	540
aaagaggctt	ttcaatatat	agaaaacctt	tcgggcaatg	tttaccgcct	aagtcttctt	600
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ccagtcaagc	aaaacgaaca	agaagaagta	cagaatagcc	cggagggaca	acatgaatat	720
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attaccatga	cggattttcta	tgccaatata	aacctgtacc	cctgcaagaa	taaaactaaaa	840
atcaaggcaa	gggaaaagat	acgggtgtgt	tcctgatgat	cgagaaacta		900
tccaagcaat	acagggatga	atggagaagc	caaataattaa	aattgttggg	tattgacgag	960
agctattaca	ggtcgaaata	caaagaacct	gtttccgatt	ttccgagtga	cagcaaccag	1020
aaattcgcaa	aggaaatgga	aagcatattc	ggataa			1056

<210> 4049
 <211> 192
 <212> DNA
 <213> B.fragilis

<400> 4049
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 gttgtcgtca tttgtgaaat ttacaccaat ggtcggttgt tttttaaaga gacaataaac 180
 ggtaatggct ga 192

<210> 4050
 <211> 570
 <212> DNA
 <213> B.fragilis

<400> 4050
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 gtcgcagctt gttccggttc ggctgaaaag aaaaagagcg atatccgtgt tttgatgcag 120
 gatagcaccg atgcacatgg agtgcagcgc atgacggccc gtaagagcga ggtagatatt 180
 aaatataaag gcaaagagta ccattcgttt atttcccgtg cgcccaatga ttcgcttccc 240
 cgggtggtaa gccagatggg gaatacgtat gtcgacaatc agatagtgt taggctgacg 300
 cgtggaaaacg aacgtgtttt cagccgtact tttacaaaa agcagttcga gtctctgata 360
 ggcgatgatt ttatggcgaa atctatcctg gaagggtattg tttatgataa aacgactcct 420
 gagggaaatag tctatgctgc cagtatctgc tatccgcaga cagacctgta tgtacctatc 480
 tccatcacga tctcacccga tggaaaaata agtatgaaga aagaagagct tctggaagag 540
 gtgtacgatg aagatacatc cgcccgttaa 570

<210> 4051
 <211> 1104
 <212> DNA
 <213> B.fragilis

<400> 4051
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 gaacacctta cagtttgtaa cagtgtcggg gtttttgatg tgtcacacat gggcgaattt 180
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 gctttggtgc cgggtaaaat tcaatatact tgttttccaa atgaagacgg gggatcgtt 300
 gatgacttac tgggtctatca atatgaactg gaaaaatatc ttttggttgt taatgcttcg 360
 aatatagaga aggactggaa ctggtgcatt tctcacaata cggaagggtg tgagttggaa 420
 aactcttcag ataatatggc acaacttgct gtacaagggtc cgaaagccat tcaagctctg 480
 caaaaattga cggatattaa tcttgccgat attccttatt atacatttaa agtcgggtgag 540
 tttgccggtg agaagaatgt gattatttcc aatacgggat ataccggagc aggtggattt 600
 gaactatatt tttatccgga tgctgccatg aagatttggg atgcagtttt tgaagccgga 660
 gctgagtttg gcataaaacc gatagggtt ggtgcgcgtg atactcttcg tcttgaaatg 720
 ggattctgtc tgtacggtaa tgacttgga gatactacgt ctctattga agccggactg 780
 ggatggatca ctaaaattgt ggacggcaag aactttacaa atcgttcgat gcttgaaaaa 840
 caaaaggctg aaggcaccgt tcgcaaatta gtgggctttg aaatgattga ccgggggatt 900
 cctcgtcatg gttacgagtt gacaacagcg gaagggtgata aaatcggggg agtaacatca 960
 ggtacaatgt ctctattcgt taagattggg attggtatgg gatacgtgaa acctgaatat 1020
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 gtaaaaccgc ctttccgtaa atag 1104

<210> 4052
 <211> 222
 <212> DNA
 <213> B.fragilis

<220>

<221> unsure

<222> (198), (199), (200), (201), (203), (204), (205), (206), (208), (213), (216)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4052

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cgtcaattga	aatatcgccg	gcgtcgtgta	gaagttcctg	ccattcgtct	tcaccagggg	180
tgcaaaggcc	ctcagggnnn	ngnnntnca	aangngttc	ta		222

<210> 4053

<211> 1905

<212> DNA

<213> B.fragilis

<400> 4053

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cccagcgagg	agcaaatagc	cgctcaaaaag	cggtattatg	actctatagc	cgtggtagac	180
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gcaacatgga	agacctatat	gtcatcagcc	aaaatgcggg	tgctgaaacc	gaaaatcgat	1260
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ccgaaacaga	tgaagaagac	cggattttgcc	gcacgcctgg	aagctatgca	aaaacaacag	1860
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<210> 4054

<211> 576

<212> DNA

<213> B.fragilis

<400> 4054

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attaacgaac	tggcaaacca	ggtatttccc	gccacttaca	aagaaatact	ttcgaccgag	180
caacttgact	acatgatgga	gtggatgtat	gcacccgaaa	acatccgtaa	acaaatggaa	240
gaagaagggc	atgtatactt	tatcgccctat	cagggagacg	aaccttgcgg	ctacgtctct	300
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cacccgtctc	cctgcctgat	ggaactaaat	gtaaaccgaa	acaacaaagc	gctgcacttt	480
tacgaacata	aagggatgaa	gaaattgcgg	gaaggagact	tccctatcgg	aaacggatat	540
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<210> 4055

<211> 432

<212> DNA

<213> B.fragilis

<400> 4055

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gataaggcct	ataaattaga	gttggccgca	ccagggatga	ctaaggagga	tttcagcgta	180
cggattgatg	aagaaaacaa	cctggtaatt	tcaatggaaa	agaaaagctga	aaacaaggaa	240
gaaaagaaag	acggtcgcta	tttacgccgt	gaattttcat	attctaaatt	ccagcagaca	300
atgattctgc	cggagaacgt	agataaagat	cacatctccg	cgcaagtgga	aaacgggtgc	360
ctgaacatcg	aactacccaa	gttgagtga	gaagaagtga	agaaacctga	cagaaccatt	420
gaagttaaat	aa					432

<210> 4056

<211> 342

<212> DNA

<213> B.fragilis

<400> 4056

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<211> 1317

<212> DNA

<213> B.fragilis

<400> 4057

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<211> 3102

<212> DNA

<213> B.fragilis

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<211> 2214

<212> DNA

<213> B.fragilis

<400> 4059

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<211> 570

<212> DNA

<213> B.fragilis

<400> 4062

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<211> 1431
<212> DNA
<213> B.fragilis

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<212> DNA
<213> B.fragilis

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<212> DNA
<213> B.fragilis

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<210> 4068

<211> 1230

<212> DNA

<213> B.fragilis

<400> 4068

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<210> 4069

<211> 429

<212> DNA

<213> B.fragilis

<400> 4069

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<210> 4070

<211> 519

<212> DNA

<213> B.fragilis

<400> 4070

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<210> 4071

<211> 1104

<212> DNA

<213> B.fragilis

<400> 4071

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<210> 4072

<211> 540

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (90), (130), (276), (291), (343)

<223> Identity of nucleotide sequences at the above locations are unknown.

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<210> 4073

<211> 354

<212> DNA

<213> B.fragilis

<400> 4073

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ggctcgttaa	gaaattatgg	actttcta	gaaaattcat	accaaaatag	caaatgtatc	300
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<210> 4074

<211> 282

<212> DNA

<213> B.fragilis

<400> 4074

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ctatcgagcc	gggggaaggc	ggttctcagt	tcgatctgta	ttgttctgag	agataatgca	240
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<210> 4075

<211> 351

<212> DNA

<213> B.fragilis

<400> 4075

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attgaacagt	taaaagagaa	attaaagagt	ggaaaaattg	tcaaatttac	ctatttgaaa	180
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<210> 4076

<211> 1275

<212> DNA

<213> B.fragilis

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<210> 4077

<211> 1458

<212> DNA

<213> B.fragilis

<400> 4077

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<210> 4078

<211> 1344

<212> DNA

<213> B.fragilis

<400> 4078

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<210> 4079
<211> 453
<212> DNA
<213> B.fragilis
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<210> 4080
<211> 1092
<212> DNA
<213> B.fragilis
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<210> 4081

<211> 780

<212> DNA

<213> B.fragilis

<400> 4081

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<210> 4082

<211> 714

<212> DNA

<213> B.fragilis

<400> 4082

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<210> 4083

<211> 603

<212> DNA

<213> B.fragilis

<400> 4083

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gaaataaaaa	tcaattcaaa	ttttcaaaaa	catattgcag	actgttatat	ggcttttaggt	300
gtgacagata	aaaatgagaa	gtgtttcctc	agtcgtaaaa	aaacagtgtg	tagtacgcaa	360
agaattaatg	tgttgttcaa	gtcaataaaa	agcaaatatg	gattgaaggt	ggaacatttt	420
tctactcaca	gtatgcgaaa	aacatttggc	agaaaagttg	ttgaagctgc	tggggaaaac	480

tcggaatttg ctcttatcaa actatcggaa ttgtttaatc acgctgatgt aatgactaca 540
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<210> 4084
 <211> 1641
 <212> DNA
 <213> B.fragilis

<400> 4084
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 agtactgcc aagtctaagg gcaacccgta aatgattacg ggcgcatcca accgcaagcg 180
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<210> 4085
 <211> 318
 <212> DNA
 <213> B.fragilis

<400> 4085
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 agttgggaaa aagatgctgt tcgggttcgt gaagagaaaag cggcaaggct tgatgctatg 180
 atagctgcaa gttgggctgc gcacaatgca cacaagaatg aaaagtccaa taaaaagag 240
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<210> 4086
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 <212> DNA
 <213> B.fragilis

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<210> 4087

<211> 579

<212> DNA

<213> B.fragilis

<400> 4087

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<210> 4088

<211> 2832

<212> DNA

<213> B.fragilis

<400> 4088

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ccggaagaag	ttgcgaagag	caacaaagga	tatactccga	agtttcttcg	cgaggaatta	2820
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<210> 4089

<211> 609

<212> DNA

<213> B.fragilis

<400> 4089

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gccattaatg	gtatgggcat	ggggccttgcc	actatgtttg	tattgatctg	ttccaatgta	180
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<210> 4090

<211> 348

<212> DNA

<213> B.fragilis

<400> 4090

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tattacaaac	taaccgggaa	aggggagtc	tttcttgggtg	aactggaggc	ttcctggaaa	300
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<210> 4091

<211> 2118

<212> DNA

<213> B. fragilis

<400> 4091

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agtacgcaac	aacagacaac	tgatagacaa	aaagaggaat	tggtgaagtt	tgcagaagac	180
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<210> 4092

<211> 351

<212> DNA

<213> B. fragilis

<400> 4092

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tcacgttatt	acgagaaatt	gccgaaaccc	aatctgattg	ctgcgcagga	atatgtagaa	300
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<210> 4093

<211> 1005

<212> DNA

<213> B. fragilis

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2049

<210> 4095
 <211> 531
 <212> DNA
 <213> B.fragilis

<400> 4095

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<210> 4096
 <211> 828
 <212> DNA
 <213> B.fragilis

<400> 4096

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ctcaaaggga	gtggctttat	tgatttgttg	ccacagctgg	gggaggttgc	ggcctttgca	780
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<210> 4097
 <211> 189
 <212> DNA
 <213> B.fragilis

<400> 4097

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aataaaggct	ctgtccctac	cggacagagc	ctttatttgt	tgacaacaga	agctctattt	180
ggaaggtaa						189

<210> 4098
 <211> 1974
 <212> DNA
 <213> B.fragilis

<400> 4098

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aaaggggttg	cgcataattg	ggtaataaaa	gctcttgaag	aattaaatat	acctattgat	180

tatatcgag	gaacaagcat	cggagctatt	attggcggat	tgtattctat	aggttacaca	240
tccgaacaat	tagaaacaat	agtaaaacaa	acagattgga	taaatttgct	tactgataaa	300
gtttcacgag	aaaaaattcc	ttttcccttt	aaatccaatg	atagcaaata	ccttgatca	360
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acaagcatcg	gatatggtta	cgatagtcca	ttgggaccta	tagaaggatt	tatatgttac	1920
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<210> 4099

<211> 1629

<212> DNA

<213> B. fragilis

<400> 4099

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gcaagagggt	ataaagtaac	tatccagaag	tttgaccggt	acatcaacat	tgaccgggga	180
acattgaacc	cttatgaaca	cggagaatgc	tacgtgactg	tagacggcca	tgaagccgat	240
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acgacaggcc	gtatctataa	gagcgtcatc	gataaagaac	gccgtggaga	ttatttggg	360
aaaaccattc	aggtgattcc	tcatatcacc	gatgaaatca	aacgtaacgt	caagttactg	420
ggtaacaagt	ataagttcga	ctttgtaatc	acagaaattg	gcggaacagt	aggtgatatc	480
gaatctttgc	cttatctgga	aagtattcgt	cagttgaaat	gggaactggg	tcagaatgcc	540
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cgcaacaat	tcgaagaggc	cggcatagaag	tgtgtaggta	tcaaccccg	gtccgacttg	1500
gtagaaattg	tagagattcc	tacattgaaa	tggtagatcg	gaacacagtt	ccatccggaa	1560
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<210> 4100

<211> 882

<212> DNA

<213> B.fragilis

<400> 4100

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gcccaggat	ccgaagtgtt	gcctcaggct	aactgcggtg	gatgtggtta	tccgggttgc	180
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gcttgtgtaa	aagcctgtcc	gaaagcgata	atcgaacttc	gtgccaaagg	taagaaatcg	600
cgctgtgtat	atgtatcttg	tgtcaacaaa	gacaaagggg	ctgtcgcacg	caaagcctgt	660
acggtaagtt	gtcaggttct	tggttaagtgt	gtcaaaactt	gtccgttcga	ggcaattaca	720
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gaagtttgtc	cgcagcacac	tatcatcgag	ttgaatttcc	ctcctcgtaa	acctaaagag	840
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<210> 4101

<211> 591

<212> DNA

<213> B.fragilis

<400> 4101

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gagccccgtc	tgtttcagga	tgaccgtggc	tactttttcg	aatccttcaa	tcagggggag	120
ttcgaatcaa	atgtatgtca	aacgactttt	gttcaggaca	atgaatcaa	atcgagctac	180
ggtgtcattc	gcgggtctcca	ttttcagaaa	cctccttttg	cccaaagcaa	actggtacgg	240
gtaatcaagg	gtgcagttct	tgatgtggct	gtcgatatcc	gcaagggttc	tcccacattt	300
ggaaaacatg	tttcggttga	attgacagaa	gacaatcacc	gtcagttttt	tattccgcgt	360
ggcttcgcac	atggtttttag	tgtgctgagc	gaagaggtca	tcttccaata	caagtgtgat	420
aattttctatc	atccggaagc	tgaaggggcg	attgcctgga	atgatccgga	tttgaatatc	480
gactggaaga	taccacaaga	cggggttata	ttgagtggta	aagactacac	acatcctctg	540
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<210> 4102

<211> 246

<212> DNA

<213> B.fragilis

<400> 4102

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gaaagaaagt	ggtcacaagt	agaattggca	gactatatga	atctttctcc	aagtttcatt	120
gcagatattg	agaatcctaa	acggagagcg	aaatataatc	tcaatcattt	aaatgagttg	180
gctaaagttt	ttagttgctc	tcctaaagac	ttcttgccctg	atacaccatt	aaaaaatgaa	240
aagtag						246

<210> 4103

<211> 543
 <212> DNA
 <213> B.fragilis

<400> 4103
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 attgcaccta tgcatacagc agagcatttg ctcaatgccca ctatggtaaa aacattcgga 180
 tgtcctcggt cacgaaatgc acatatcgaa aagaaaaaaa gcaaatgtga ttacgaactt 240
 ccgacttgcc caacggagga gcaaattcat gccattgaag aaaaagtaaa tgaagctatc 300
 gatcgccatt tacctgtaac ctgtgagttc atgacacacg aagaagccaa aagcattgtg 360
 gacctgagta agcttccgga aaatgcaagc gaaatattac gtattgtcag aataggagat 420
 tacgatgctt gcgcttgcac cgggcaacac gtagaaaaca catcagaaat aggtcctttt 480
 aaaattatca gttacgatta tgccgacgga aaattacgcc tcagattcaa actgataaaa 540
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<210> 4104
 <211> 897
 <212> DNA
 <213> B.fragilis

<400> 4104
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 tattgggtca gcgatcccga acgttatggg gtagctgagt ttgacaaggc tgggaatggt 480
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 ttggaaatca cgacggtcaa tcaacggttc ctgtccgatc ggggaactgaa ggtccagctt 660
 ttggggcgcg gctttgcctg gttggataca ggtactcatg attctttgtc cgaagcaagt 720
 acatttatcg aggttattga aaaacgtcag ggtttgaaag tggcctggtt ggaaggcata 780
 gccctgaggc aaggctggat ttctcctgaa gagatgaaag cattggcagg tccgatgctg 840
 aagaatcaat atggacaata tctgttgaaa gttatcgatg aattatccat aaagtag 897

<210> 4105
 <211> 1095
 <212> DNA
 <213> B.fragilis

<400> 4105
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 gagctgcaaa acagtggata cgaagtaatc atcattgata atttatctaa ttcaaagtct 180
 gatgtcgtag ataatatcga aaaggatatca ggtattcgct ctgttttcga gaaactggat 240
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 ggcatgtgat tctcttcttc atgtactgta tatggtgaac cggatgaatt gcctgtaaca 480
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caggaaactc	tggaagatac	actgcgttct	gcttgggcat	ggcagttgaa	acttcgtgaa	1080
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<210> 4106

<211> 834

<212> DNA

<213> B.fragilis

<400> 4106

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gcccttgaaa	tcacaatatt	aaatgactcg	aaacaaaaat	ttgtcctgca	ccaatccggc	180
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<210> 4107

<211> 1797

<212> DNA

<213> B.fragilis

<400> 4107

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cacaccattg	aaaagggcca	aagttttatac	tccatctcaa	gcatgtatgg	agtcagcaaa	180
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gagacactct	atcggctgac	aacgacctat	aaagtttctg	ccaaggctat	ctgtgacgct	360
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<210> 4108
 <211> 1359
 <212> DNA
 <213> B.fragilis

<400> 4108						
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 <212> DNA
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<211> 840

<212> DNA

<213> B.fragilis

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<210> 4111

<211> 1647

<212> DNA

<213> B.fragilis

<400> 4111

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 <211> 828
 <212> DNA
 <213> B.fragilis

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<210> 4113
 <211> 216
 <212> DNA
 <213> B.fragilis

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 ttagtcacag attttacagt ttatacaagt cgcttgccgc caacaagtca actttctttt 180
 ccgtcaacac acggatacag ttttccatat cattag 216

<210> 4114
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 <212> DNA
 <213> B.fragilis

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<210> 4115
 <211> 486
 <212> DNA
 <213> B.fragilis

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agtgcactct	tccagatatc	atgggcatta	tgccctgccg	taatttcgat	tattctgaat	420
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<210> 4116

<211> 321

<212> DNA

<213> B.fragilis

<400> 4116

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gccaatcttg	atataaaaaa	tatccggatg	aataataatcg	ataatgacca	ttcgggttagt	240
tcccgaggcg	tggtggataa	aataacagat	tcaacttact	ttcagaccaa	tgcttggcg	300
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<210> 4117

<211> 183

<212> DNA

<213> B.fragilis

<400> 4117

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<210> 4118

<211> 3507

<212> DNA

<213> B.fragilis

<400> 4118

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<211> 2433

<212> DNA

<213> B.fragilis

<400> 4119

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tctgagattg	actggaaacg	tcttgaaact	gtagaagaag	ccggcattaa	agaggggtgac	2340
gagatcgaag	tgaaattgat	cgatattgac	ccgaagacag	gtaaattcaa	actttcaaga	2400
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<210> 4120

<211> 1617

<212> DNA

<213> B.fragilis

<400> 4120

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ccggaaccgg	acggagagga	tatgattcct	gttacggtca	gccgggttga	ggatggcagc	180
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tgggtgccgg	tgaaagagcc	accgccagc	agggccatac	cggctgccgt	gccttacgag	300
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acattgggca	acggcattta	tttccggtg	atcgctttcc	gtaaagtagg	cagcaattac	420
gtgttccagt	cggcagcgga	ttttacgacg	aacggggctt	ccgctcccac	actcaggcta	480
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caaaatggat	gtacagcgag	tgataaaaat	gacttggcaa	agttgagatg	ggctacagga	1140
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tattacacat	ggtacagtac	ctatacagga	aacacaaata	ttaataatac	agatccatgt	1260
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ggaaataata	cagggaaaag	actatatttt	ggtaaactgt	ataataccgc	agatgtagcg	1560
gaccatgcc	aaaacgccgg	actgactggt	cgttgcgtaa	aaggcactaa	acaataa	1617

<210> 4121
 <211> 762
 <212> DNA
 <213> B.fragilis

<400> 4121
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 gaaatgaaga aagaagatac cggcttgccg gcagagactt taaagcatgc cgctcgacctc 180
 tttcagcgta cagtatcgga attgggtactg aacggatact ctgtcaatac ggggttattc 240
 cgtgctgttc cccagtttcg cgggtgtaata gacggtggag tatggaatcc tgagaaaaat 300
 tctatctatg tttccttcaa tcaggataag gatttacgtg aagctatcgc acgaaccggc 360
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 atcaaagtag caggtagaca tcctgctgta ggtatcgtct tgattgatga aaaaggcacg 540
 gaaacgaagc taccgatgga tatgatagca gtaaacaacc cttcggaagt actggtactc 600
 ctaccggcag acctgacaga cggaatatac aaactgcgac tgactacgca atataccagt 660
 ggcaaccggc aactgaagac accacatgtc atcagccaaa ccacgtaat aggcaatata 720
 accgagggcg acggagatat tgtggacgac ccgacagcat aa 762

<210> 4122
 <211> 261
 <212> DNA
 <213> B.fragilis

<400> 4122
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 cagtcattta tctattccct ttgcattttg tacagagagc aagaatcctg tttcaaaaga 120
 cgaacgtctt ttgaaacacc acctgtgtat tcaagacagt tataatctgat tggaaatcac 180
 aaacttacgc ataataaaag ttgtatcaaa cagtcctttac cgacttatac ccttatgtat 240
 aagtcgggca agagattttg a 261

<210> 4123
 <211> 942
 <212> DNA
 <213> B.fragilis

<400> 4123
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 gaagaaaggc tgattctgga ttgggtggat gcctccccg agaatcggaa agcattttcaa 120
 aaagaacgca tgctatatga catagcctta ttcacagacg aaaaacagat gaaccggaaa 180
 gatagaaaag cccggatcat ccctatgctg aggtggagtg cacgtattgc cgccgtagtc 240
 attgtagcca tcagtttcggt attcttgttt aagaactatc agtatgaaaa atcagcttgc 300
 caacaaacca taacagtacc tgccggacaa cgcgcacaaa tcacactggc ggatggaacc 360
 aaagtatggt tgaactccaa atcgacctta acctatgcat ccaacttcgg tcgtaaagaa 420
 agaaatgtag agctggatgg agaagcctat tttgaagtag ccaagaataa aaaaatacca 480
 ttcttcgtca atacggagat taatcgggtg aaagtggtag gaaccattt caatgtctgc 540
 gcctacaaaag gcagcaacga atttgaaacg actttaattg agggaattgt cgacatctat 600
 ccgataggga gtgatcagggt aattacccgg ttgacaaaag acgaattttt cggatcgtag 660
 aatggaaaat ataaaaagac cactttgcct tcgtacgaat atctgagatg gaaagaggga 720
 ttatactgtt ttgatgatgc accctttaac agcctgtcga acaaactgga aaaatattat 780
 aatgtgaaca tcagcgtgag aaacctgaac atactcaact accgttgtag cggtaaagttt 840
 aaagaacagg atggcataga acatatcctg aaagttattc agaaagatca taagttcacc 900
 tatagtatca acgaagagaa agacagcatc atcattgaat ag 942

<210> 4124
 <211> 1125
 <212> DNA

<213> B.fragilis

<400> 4124

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ggggaaaggc	tccttggtat	caatcccggg	tccacttcaa	caaagatcgc	tgtttatgaa	120
aatgaaactc	ctttgttggt	acgcaacatt	cgccatacgg	tggaagagtt	gtctgccttc	180
ccccgggtga	tcgatcagtt	cgaatttcgt	aaatcgcttg	ttctccgaga	gttggaggta	240
aacgatattc	ctttccgggt	cgatgctgtc	attggacgcg	gaggcttggt	gaagcctatt	300
cccgggtggag	tttatgaggt	taacgaagcc	atgaagcggg	atacccttca	cgctatgcgt	360
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tgcggggcgt	ttattgcaga	tccgggtgtg	gtggacgaac	tggaagaggt	tgcccgattt	480
accggttcgc	ctttgatgcc	gcgtatcact	atctggcatg	cactgaatca	gaaagctatt	540
gcccgctcgtt	atgctgccga	acatggcact	cgttatgaag	atcttgattt	gatcgtctgc	600
catttgggag	gagggtatttc	tgttgcatgc	catcgtcatg	ggcgtgcagt	cgatgccaat	660
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gccaaaagta	tcggtgctgc	ctctactggt	ttatgtggaa	aggtagacgc	cattctgctg	960
accggaggca	ttgcctattc	cgattatgta	atttcccggt	taagggaacg	tatctctttc	1020
cttgctccc	ttttcgtgta	tccgggagaa	gatgagatgg	aggctttggc	attgaatgct	1080
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<210> 4125

<211> 570

<212> DNA

<213> B.fragilis

<400> 4125

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caagaaaacc	agaagaagtt	tctgtcgttt	gcttattcat	acaccgaaa	taaagccgca	120
gccgaagata	ttctgatgga	agcaatggcc	agcctgtggg	agaatcgcaa	aaaatgggaa	180
aaagattcca	acctgcatgc	attgctgctt	actatcatca	aaaacaaatc	actcaattat	240
cttgaacacg	aacaagtgcg	tatgaaagct	gaagaggtga	tcaatacaca	taagcaacgt	300
gaactcgatc	tccgtatctc	caccttggaa	gcattgcgaac	ctgcgcacaat	tttcgatact	360
gagatacaac	gcacgtatata	taaaacactt	gaacagctgc	cggaacaaaag	ccgccacatt	420
ttcatattaa	gccgttatca	caatactccc	aataagaaga	tagccgaaca	actcggcatt	480
tctatcaaaa	gtgtagaatt	tcatatcacc	aaagcattga	aactggtgcg	tctcgaactc	540
aaagattatc	ttatatccct	acttttttaa				570

<210> 4126

<211> 1629

<212> DNA

<213> B.fragilis

<400> 4126

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atcggatttt	cagcttgtag	tgattctttt	gagtcgttca	acaccaacga	agcaggattc	120
gataatgata	gtaaaaaaca	ggatttcaat	tattatggca	tccctttggg	aatcattcag	180
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caaaacctgg	gggcagatct	attctcggga	tatgtgcatg	acttcaatcc	cttcaacgaa	300
ggaaagaaca	acagcactta	ctacatgatg	gacggctgga	acggttctac	atgggataat	360
acctatggat	acattatgcc	ggaagtacag	aaatcagaga	ctattaatga	aaaagacaat	420
atagggttct	tcggtattac	caagatactg	aaagtggaa	taatgcaccg	cttatccgac	480
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gctgtccgta	ttgccatggc	ggactctaag	ctggctgtgg	cagaagccca	aaaagcactt	780

acggatgaag	aaggattgct	ggaaggcaat	gatgaagtgc	tagccgtttc	tacctcatca	840
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aacatggagt	ctctattagt	gggttacgaa	gatccccgca	tggaaaagta	ttttgataaa	960
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cgtcgactga	acttcttcgt	aggtatcaaa	acgaccaatc	ccgagcaata	taccaatttg	1560
gtaaatgcat	tgggcggaat	cgacaactgc	ggcactcgcc	tgtggtggga	caccggaaga	1620
aatttctga						1629

<210> 4127

<211> 750

<212> DNA

<213> B.fragilis

<400> 4127

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gtggctcttg	ctttaagttc	ttgtaattct	gaccctaaat	ttaatgtaaa	aggagatggt	180
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ttggattcta	taaaattgaa	aggagacggt	tcattcagtt	ttaaacaatt	gcgtcccga	300
tctcctgagt	tttatcgttt	acgggttgaa	gataaagtaa	ttaatttctc	ggttgactca	360
acagaaactg	ttagcattca	agcaccttat	acagatttct	ctactgctta	tacagtggaa	420
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gcggcaccga	atactgcttc	tgcctatttt	gcactatttc	agaaattaaa	caattatatg	660
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ctgaacaata	cttatccgca	agtcttcacc				750

<210> 4128

<211> 324

<212> DNA

<213> B.fragilis

<400> 4128

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ttgaagtgtg	ctgttattgt	ccgggaactt	gcgaaaggaa	ccatgcgtat	cgtagtagtc	120
tggtagtggt	ttgggttgaa	tgaagctgtg	ttgctggtat	tagcagccac	tgccgaactg	180
ccaattaccc	acgaggttga	attacctccc	tgctttacgt	ataccctgtg	acaccgctg	240
atggtattac	ttgtgaagcc	ggttacacta	atgcttattg	tcagtttaca	cagtttctgt	300
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<210> 4129

<211> 954

<212> DNA

<213> B.fragilis

<400> 4129

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ttaaaccggc	gaaaacggat	tgccgttgct	tgtgccaaac	atccgaatac	agaatatgcc	120
attgcccgct	cactcgacga	agagattgct	gaattcctga	tgattggtga	ctcggccatc	180
ctgcaaaagt	atcccagctc	gcagaagtac	ccggaatatg	tgaagaccct	ccacattgaa	240

gatcccgatg	aggcagcgcg	tgaagctggt	cgtattgttc	gggaaggggg	agccgatatt	300
ctgatgaaag	gtattatcaa	tactgacaat	ttgcttcatg	ccattctcga	caaggagaaa	360
ggcttgctgc	ctaaggggaa	gattctgact	catttgcccg	taatgcagat	tccgacgtat	420
gataaattat	tgttcttctc	agatgccgct	gttattcctc	gtcccacttt	gcaacaacgc	480
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ccggtggtgt	taccgtcacg	cagtgtattc	ggactttcca	agtattatag	tattgcgatg	900
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<210> 4130

<211> 1647

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (354)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4130

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aagtatccat	tttttccgga	aaaagggtat	gattccggta	ctgtaatccc	tattaaaatc	180
agtatggctg	aaaatggaga	gtacgattcc	tatactccgg	aaaacgacat	ggctcctcgt	240
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tataatacca	ccaagataga	tatccccaac	atgaataatg	actttatgac	ttatgattca	660
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acagtaggaa	atctaattgc	taataatgcg	gataatatcg	atattgcttc	aactcagagt	1020
gtccaattga	aagagggaat	gagctataca	atgaaaatcc	agtttaagag	aagccccgga	1080
ataaatgttc	cggcaggtag	catcaatctg	agcaatccga	aaaaagcatg	taccaatgat	1140
gataagcaaa	agttatcaaa	attggtat	gccgacggca	atttaaaaag	taccggtgca	1200
agcaacaatt	atgtatgggc	aaccaacaaa	gaatatggct	actattacca	atggaaaaaa	1260
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tttgggtcaat	attttacaga	tgaatcaatt	aatactaatt	attgttatag	attggatata	1560
tctcccggtg	aaggtaaaac	tgatgtcaat	agcacacaaa	agaaaaatggc	atacacaaact	1620
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<210> 4131

<211> 267

<212> DNA

<213> B.fragilis

<400> 4131

acactagatg	ccaattctta	ttctgcttgg	cgtattggag	gacggttgag	ctttaaaaat	60
gaaacattag	ccatgatctt	gcctcgggta	gagaaatgg	acggacaaaa	gatcgattgc	120
ccgcagaaaa	ctgctgatca	ttatcgcttt	acattttacgt	tgcggaatga	acctttggat	180
ctgatattaa	atataatgtc	gcatagtgcg	ccattaaatt	ataaattaat	aagtaatgac	240
tactatgttc	tcgaagaact	taagtag				267

<210> 4132

<211> 1164

<212> DNA

<213> B.fragilis

<400> 4132

ttaatcgtat	ttatgagaaa	atgcaacatg	cggtgggttta	gtccgcaaag	aatgaaaaag	60
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caagtactaa	agattttcaat	gacaaagacc	aatgtatcta	ttgaaaatgt	acttcgtgaa	180
cttgaaaaac	aaagcgatta	cactttcttc	tacaatgaca	ttcaggtaaa	actgaacaag	240
aaagtatcca	tcaacgtatc	cgacgctccg	atcgaaaccg	tattgaacga	agttttcaaa	300
aactcgggat	atacctacaa	gattgtagac	aatcagatcg	tagtgtctac	agcagctgca	360
gcagcgaaag	aggtacaggc	taccagcaa	cagaaacaaa	gaaaaatttc	gggagttgtg	420
aaagatgcaa	tgggagaagc	catcatcgga	gcatcgggta	tagaaaaagg	aaatccgact	480
aacgggtacta	tactaatat	tgatggtag	tttactctta	acactgccgg	taagggaactt	540
cagggtgactt	atattgggta	tatacctcaa	gcgattgttc	ttaaaccggg	agttaatagt	600
tatacagtta	ccatgaaaga	ggatactaaa	actctggacg	aagtgggtgg	agtaggttat	660
ggtactcaga	agaaggtaaa	tttgacaggt	gctgtgtctt	ctggttgagc	ggacgaattg	720
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tacggttctc	gtgcagctta	tggtgttgta	ttggtaaaaa	ctaaagggtg	taaagaagg	1020
gatttgaaga	tcagttatga	tggttcgggc	gcagtgaaaa	tggcgactta	tacacctgat	1080
gtattgggct	ctgaatggta	tgacggtttg	agtaatgagg	ctgctgtctt	caccgcggag	1140
tgccaaacta	ccctctattg	cccc				1164

<210> 4133

<211> 216

<212> DNA

<213> B.fragilis

<400> 4133

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tactttcaaa	aatatcggtg	tctacttaag	ttcttcgaga	actatggcgt	tttttccctt	120
ttattatttc	tggtttctgga	ttctacttac	attttgatta	tattatactt	tttatcattt	180
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<210> 4134

<211> 189

<212> DNA

<213> B.fragilis

<400> 4134

catcgtgcga	aaatgaaatt	taaaagtcgg	cctcttaaaa	gctattttact	acctcttatt	60
gattacaatt	caactatcat	aaatataata	aactcatatt	ataagcatca	tatagcatcc	120
cgtttttagga	tttatgtagc	aaacaaatcg	tatacaacac	ggtttgctctg	tcataagtta	180
ttctactaa						189

<210> 4135

<211> 240

<212> DNA

<213> B.fragilis

<220>
 <221> unsure
 <222> (119)
 <223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4135
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 gttttgttac acggtggcctt ccgtgatcga atcgtggaga tgggctttat caaagggtana 120
 cccgtaggag tattgcttaa tgctccattg acagaccgga tctcatatcg aataatgggt 180
 tatgtaattct ctctgcgacg acaggaggct gatatgattg agattatcag cgagcagtag 240

<210> 4136
 <211> 2373
 <212> DNA
 <213> B.fragilis

<400> 4136
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 gcccttttcc tctttcttgt cctgtatata ttttgcttcc ccagccaatt attcacctcc 180
 ccttactcta ccgtcgtaac agaccggaac ggtgaacttc tcggtgcccg tatcgccacg 240
 gatggacaat ggcgttttcc cccgcgcgag aatattcccg agaaagttgc cacttgccctg 300
 attgaattcg aggatcgcca gttctaccat cattggggag tcaatccttt ggcaataggc 360
 agagccgtag ttcaaaacct caagcacaaa cgtatcgtca gcggaggaaag tacccttacc 420
 atgcagacca ttcggttggc tcggaacaag ccgcgtacat tcaaggaaaa gctgattgaa 480
 atggtgtggg ccaccggttt ggaatttcgt aaatctaaga aagagatact gtcactttac 540
 atttcacatg ccccttctcg aggaaacgta gtaggactgg atgcggccgc ctggcgatac 600
 ttcggaact cggtgaaga actatcatgg gcagaatcgg ccatgttggc tgtactcccc 660
 aactcaccgg ccatgatcca tctttcgaaa agtcggcaag cactcctcga taaacggaac 720
 cgactattga cacacctgca taaaaaagga attctggata cttcaacata tgaactggcc 780
 atcagtgaac cacttccgca ggaaccttta cctcttcac acatagcgcc tcactgaca 840
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 cagactcaaa ttgaaagttt ggtagaacga tggaaacagt aattcaaacy gagtgacatc 960
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 aatgtacatt tcgacaaaga gcagagcggc aaccaagtag atgtcatccg gtcgccacgg 1080
 agcaccggca gcattctcaa gccttttctt tattatgcca tgctacaaga aggagaaatt 1140
 ctcccaaata ctttgttgcc ggacattccc gtcaacatca atgggttcac tccacaaaat 1200
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 gaagaccgat tccaaccgat gcaatttatt tatccgcaa tgggagcccg tatccatctg 2160
 cccaaacaga tggatggcag caaagggcag ttgactgtcg aactggttca cagtcatccg 2220
 aataacaacca tctactggca tctggacgag acatacctga cgcaaacgca ggacttccac 2280
 aaactttctc tccgtccgtc ccccgcaaaa cactccctga cggcagtgga tgacgagggg 2340
 aatacaattt cgacaacgtt ctttgtggaa tag 2373

<210> 4137
 <211> 1329
 <212> DNA
 <213> B.fragilis

<400> 4137

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gcattgctac	gtctcctgct	atcaatgggg	tatacctgcg	aagctgctca	ctgcaatttc	180
catttgcggg	ataaagaatc	ggacagagac	gaagcttttg	tgcgcccatt	atgccatgaa	240
tcaggggttc	ttttacacat	agaacatttc	gatacaacct	aatacgccgc	aaagaaacat	300
atttctattg	agatggctgc	ccgggaatta	cgttatgaat	ggttcgaaac	gcttagaaaa	360
caacgtgaag	ccagtgttat	cgcaacagcg	catcataaag	atgacagtgt	agaaaccgta	420
ttgttgaaac	tgattcgcg	tacgggtatc	aacggattac	tccgaattcg	tccacgaaac	480
ggtaacattg	ttcgcccttt	actttgcctg	agtcgcgaag	aaataatagc	ctatctgcaa	540
tatatcgacc	aagattacgt	aacggacagc	accaatcttt	tggatgaata	tacccggaat	600
aagattcggt	taaacttatt	gcccctgatg	aaagagatca	atccgtcggt	gaaagagagt	660
atcatccgca	ctaccaacta	tctgaatgac	gcagcaactt	tatacaatca	aagtataggg	720
gaggcgcgta	aacgtatat	gacccccgaa	ggcatccgga	tagaagcctt	gctgcaagaa	780
ccggtaccgg	aagccatttt	attcgaagta	ttacacccgc	taggattcaa	cacgacccaa	840
atagataata	taaggcaaac	gctcgacgga	caaccaggaa	aagtcttcct	tggtaaagga	900
tggagagtca	taaaagaccg	tgacctgtta	ttaatcgaag	aagatacaac	tgcagaagag	960
tcccagccac	ctttccgggt	agttatggaa	gagtacgatt	atacttctga	atttataatt	1020
ccaaaagata	aaaacacggc	ttgcttcgat	gctgacaaaa	taaataaaaac	atgggagata	1080
cgcaagtggg	aaccaggaga	tgtttttata	cctttcggaa	tgaccggtaa	aaaacatgtc	1140
agtgactacc	tgacgggata	aaaattctct	ttgagtgaag	aagaaaagca	atgggtatta	1200
tgctttggag	aacaaatagc	ctggctgata	ggagaacgta	cggataaccg	atttaaggta	1260
aacgagaaca	caaagcgggt	aataatagtc	cgaattgttt	ccgaacattc	agatttttatt	1320
gaggaataa						1329

<210> 4138
 <211> 549
 <212> DNA
 <213> B.fragilis

<400> 4138

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ttaagcaagc	aaaaagagg	aagcttgttg	ctggaagccg	acaataagat	ggagttgggtc	180
cagttgttgc	gcattcatcc	gcaagcgggt	gttattttag	actatacact	atttgatttt	240
tccggtgcag	atgaattgat	catccttcag	gaacgattca	aagaatcaga	ctgggtattg	300
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ggagtcgtgc	tgaaagacaa	ctccaataaa	gagataatga	cggccctgca	ttgcgcatca	420
cgaaaagagc	gctctatctg	caatgatgta	agcaatcctg	cattatgcgg	aagtggaaaa	480
ttaaccactt	gttttaggccg	tgcacacgtc	ttgtaccgga	tgaatacccg	tctgctccat	540
acgcgatga						549

<210> 4139
 <211> 1053
 <212> DNA
 <213> B.fragilis

<400> 4139

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aaaggagcat	tgcttattct	taatgtggct	aaagaacttt	taaatatccc	gactcaactt	120
catgaaataa	atgacatttg	cgccatttat	tgtatctttg	caaaattaaa	agtgatgaag	180
atggacttga	agaaagaagt	gaaggaagag	tttatccgtt	tccaacgaaa	tgagaaaacc	240
gaaagtatcg	tatacgaacg	cgtgcctttt	attgaaaaag	acgaatcgac	ccgcaaagta	300
ttacgtctga	tctcagcaga	agaaaaagcg	cattatgcc	actgaagaa	atatacggaa	360

acccgacgttg	caccagacaa	gttgggtata	gccaaatatt	actggctggc	aagaatcctg	420
ggtattacat	ttgccattaa	actgatggag	tcaagtgaag	agaatgcaca	tcatgattat	480
gccaaatata	cagattatcc	ggacctccgg	caattggcca	atgaagaaga	agttcatgaa	540
cagaaattaa	tctgggcta	caatgaagca	cgacttgaat	atatgggttc	ggtagtgtc	600
ggtctgaatg	atgcttttgg	ggaattttacc	ggggcattgg	cgggattcac	tctggccttg	660
agtgactcca	ggctgatagc	cctgacggga	agcatcacgg	ggattgccgc	agctttatca	720
atggcttctt	ccgaatatct	ctcgacccaa	tccgaaggag	gagaaacgaa	acatcccata	780
aaggccgcca	tctatacggg	tattgtttat	atcatcacgg	tagtggcgct	ggttgctccc	840
ttcatattga	tcgaaaacgt	attgatagct	ttgggagtaa	tgctggccat	ggctttggta	900
atcattgcat	tattttaatta	ttactattcg	gtagcacgcg	gagaaagttt	ccgaaaaaga	960
ttcaccgaga	tggcagtagt	tagtttcagc	gtagccggca	ttagctttct	gataggctat	1020
gcactgaaaa	catttacagg	aatagacgct	taa			1053

<210> 4140

<211> 282

<212> DNA

<213> B.fragilis

<400> 4140

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atgccggtca	gtagtcccga	tacgacgatt	cctacatttc	tccctttgtt	ttccggacgt	120
gagaactggg	aagctatcgg	gatgaatata	tgtggcatca	ccgaacagat	gccggtgagg	180
agcgaggcac	acaggatgac	gtggatgttg	ggggccatcg	cgatcaccag	caacgaaacg	240
attaatatgg	agaagctggg	gagaatgata	cgctttcgct	ga		282

<210> 4141

<211> 897

<212> DNA

<213> B.fragilis

<400> 4141

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ccgtattgcg	gtaaaacgtc	tctcttcaat	ctggcttcag	gtgctcacga	acatgtgggt	120
aattatagtg	gtgtgacggg	agatgctaaa	gaagggtatt	ttgatttcca	gggttatcac	180
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gtagtggctc	ttaacatgta	tgatgaactg	gaagccagtg	gtaatacgct	tgactatctc	420
ctgttaggaa	agttgttcgg	agttccgatg	gtgcctactg	tctgtaaaag	gaatatcggt	480
gtggaccgtc	tttttcatgt	agtcataaac	ctttatgaag	gtgccgactt	tattgataaa	540
aaagggcata	tacatccgga	gggtggcaag	gaaattatgg	attggcacca	gtccttacct	600
aattttaaag	accatgggtg	acatccggct	gattataccc	atggcaaaga	accggtgggt	660
aaagtgttcc	gccatattca	tatcaatcat	ggaccgatt	tggagaaagc	cattgatgca	720
gtgaaagagg	agatttcgaa	gaacgagttt	atccgtcaca	agtattctac	tcgttatctt	780
gctatcaagt	tattggagaa	tgatccggaa	atagaacgtt	ttattcatac	tctgcccaat	840
gctgtggaag	tagaaaagag	tcttcaccac	ggggctggaa	ggatcagcgc	ggtgcaa	897

<210> 4142

<211> 627

<212> DNA

<213> B.fragilis

<400> 4142

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gcattagtat	tagtaagtgc	atcgacttta	atgtatgcac	aagagtcaca	gagagacata	120
cgccgcgctg	accgtaaagc	acaaagagac	gcagaaagag	ccagactgaa	agctgaggaa	180
caagctgccg	accaagtggc	ctatcagcaa	gccgtacagg	ctatcaaaga	caaacagttt	240
gtactggaag	ccgatcaggt	aatcttcaaa	cgcgccagaa	cagctttcgt	atcgccaac	300
actaactttg	taatgttgaa	cggacagaga	gcaaccgtac	aggtagcggt	caatactccg	360

tatccccggcc	ctaacggaat	tggcgggtgta	acagtggacg	gaaccacttc	ggatgtataaa	420
gtgactaccg	acaaacgagg	caatgtgaac	tgcaacttca	gcgtaacaagg	tatcggtatc	480
tccgcacaag	tctttatcac	attgacaaac	ggaggcaaca	acgccactgt	gaccattaat	540
ccgaacttca	actccaatac	attaacgttg	agcggcaacc	ttgttccgct	gaaccagtcg	600
gatgtattta	aaggccgttc	atggttaa				627

<210> 4143

<211> 1449

<212> DNA

<213> B.fragilis

<400> 4143

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gtcgtatttg	ttatcatgct	gtttgccacc	atacgtacct	ttggcagcga	tgcactcagc	120
ggaggtagcc	aagtgtccct	gctgactaca	acagccgttt	gcatactgat	cggtatggga	180
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ggtgtggtcc	ccacattgat	ttattacgga	gtgcaaatca	tacatcccag	ttttttcctg	360
acctctacct	gcattatctg	tgccttggtg	tccggttatga	ccggaagctc	ctggactacg	420
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cagtccatct	tcaaaggact	gatgatgact	ctttatggag	ggaccagtct	acagacaagc	960
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gtttgctctg	gtattttcct	gaacctcgcc	acagccgatc	agtatattag	cattatcctg	1200
accggaacaa	tgttccggga	tatttatgaa	aagaaagggt	atgaaagctg	tttgctcagt	1260
cgaaccacgg	aagattctgt	tacagtgacc	tccgtattaa	taccatggaa	cacttgccga	1320
atgacgcaag	ccacgatact	gagtgttcct	acactgggtt	atcttcctta	ttgcttcttc	1380
aacattatca	gtccgttaat	gagcattacg	attgctgcc	tccgatataa	aattgtgaga	1440
cgaagtga						1449

<210> 4144

<211> 192

<212> DNA

<213> B.fragilis

<400> 4144

ccagcttcca	tctgtcagtc	aaatcgcaga	tattattaca	tctgtatctc	tatcgggaagt	60
ttacaggcca	gatcaatcat	atattttcaa	ggtttatatt	cacaaagata	caatttatcc	120
tataaagagt	ttactatttg	cacctcaaa	tttatgcttc	gtatctttag	gttattcctc	180
aataaaatct	ga					192

<210> 4145

<211> 1185

<212> DNA

<213> B.fragilis

<400> 4145

ctttgtgcc	tgaacagat	tttgaaagaa	aacggcggac	taccggcttc	gattcttttg	60
acacttgcta	ttgttgccag	tatatcggtg	gccaatctgt	actataacca	gcctttactg	120
aacatgatcc	gccatgaatt	gggtgtttcg	gagttcgaaa	caaacctgat	tgccatggta	180
acgcagatcg	gatatgccct	cggactattg	tttatcgctc	ccttaggcga	tttatatcag	240

<210> 4147
 <211> 486
 <212> DNA
 <213> B.fragilis

<400> 4147

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tttggaaaaa	agaagaatga	agattattct	gtaaagactg	tgaaagtcgg	tgttgataaa	120
ctgactacaa	tagcattggg	aacaatgggt	aaaggaacaa	tcacggtaga	aggggattta	180
cgttttagatg	gaataataga	gggaaatggt	tcctgtagag	ggaaagtggg	gattggtcct	240
caaggaagga	tcaaaggaaa	tgtgacgtgc	accggtgctg	tgttacacgg	gatgttacag	300
ggagatatctc	aggtggcaga	agatttgata	atgaaatcgg	gatgtacaat	gaatgggtgat	360
gtttatacat	gtaaacttga	aatagaatcg	aaagccaggt	ttaatggtag	ttgtaatact	420
actgagaaag	atacacttgt	gacaagtcag	gttgtgaagc	ctgagactgt	ggatactgag	480
aatga						486

<210> 4148
 <211> 1266
 <212> DNA
 <213> B.fragilis

<400> 4148

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<210> 4149
 <211> 1161
 <212> DNA
 <213> B.fragilis

<400> 4149

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<210> 4150

<211> 1200

<212> DNA

<213> B.fragilis

<400> 4150

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<210> 4151

<211> 189

<212> DNA

<213> B.fragilis

<400> 4151

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attatttata	ttcctgccag	ctctttatct	gaatatcttc	cagtttcaga	tcgcagaatg	180
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<210> 4152

<211> 915

<212> DNA

<213> B.fragilis

<400> 4152

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gcaattgtac	atccgggcat	tttacagacc	gataccgcag	caactggaac	ctataccgga	480
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<210> 4153

<211> 1587

<212> DNA

<213> B.fragilis

<400> 4153

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<210> 4154

<211> 999

<212> DNA

<213> B.fragilis

<400> 4154

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gacgatgagg	taaaccggat	gaatagctct	cttattacat	atattttatc	gaagaagaaa	960
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<210> 4155

<211> 609

<212> DNA

<213> B.fragilis

<400> 4155

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gatccgtttg	agagctatcg	tcgtaaagg	tggggagtat	cgggaggtat	ctcgaccggg	420
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<210> 4156

<211> 3246

<212> DNA

<213> B.fragilis

<400> 4156

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<210> 4157

<211> 339

<212> DNA

<213> B.fragilis

<400> 4157

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<210> 4158

<211> 576

<212> DNA

<213> B.fragilis

<400> 4158

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<210> 4159

<211> 1170

<212> DNA

<213> B.fragilis

<400> 4159

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<210> 4160

<211> 210

<212> DNA

<213> B.fragilis

<400> 4160

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tcacacgagg	caacacatga	aattagcatc	gccatactaa	ccataaaaga	gagtcctttc	180
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<210> 4161

<211> 1416

<212> DNA

<213> B.fragilis

<400> 4161

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cccgggtgaat	ctgaatatct	tcaggctgta	aaagaagtat	tactctctat	cgaagatata	180
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gcaacatccg gactcgaaat gtcacaaaat gcaatgcact tgagctggag tgcagccgag 1260
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<210> 4162

<211> 747

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (593)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4162

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ttgaagaatg acgaggggct tctgacattg gatctggtga acaagactca ggctacgcct 180
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gagattgttg ataatgccac tgaagccgtg gtccgttcat ttgccagcta tgcaaagttg 300
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caaggaatgg agtctaaggc agaagttctt tgtaaatcgg caactgtgaa ggtaggttg 480
aatatatcag aagagtttct caatatgttt gccgatgatt acgtgttcac tgtttcaaac 540
ggaatcggcg gagtcattta tgtaaagaag gaagatttaa gttcgattta tcncagcatt 600
caagcgggct gtacttcgat caatatgtga tctaaagaac gtcagaagaa cagtggtaga 660
gacattgaga ctgttgatac agtgacgagt cacatgcaga aggtctgcaa gcgcgtgatt 720
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<210> 4163

<211> 606

<212> DNA

<213> B.fragilis

<400> 4163

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gtagacgaac cggatattat cgggccgtat aaagtggtaa aagtgtatac caataatcct 240
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aactaa 606

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<210> 4164
 <211> 2985
 <212> DNA
 <213> B.fragilis

<400> 4164

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gatgctttta	tgctggagga	tgacgggcgt	atcgatgaaa	agattttcaa	tgaatatacc	180
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gactatgtgt	tctgttgggt	gggaaatacc	gatttgctgg	tgtctatcat	taagctgac	480
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aagtatacta	acaatatatt	gggagttatt	accgatgtcc	gttttctctg	tgtggataag	780
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<210> 4165
 <211> 246

<212> DNA
<213> B.fragilis

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actctcatat gtatcgacca caaggccgga catgggtcca acaaagccac aacaaagtta 180
gtaaaggagc aagcagacat ctatgcattt atcatgtata acctggggat gaaaatgaaa 240
tactga 246

<210> 4166
<211> 825
<212> DNA
<213> B.fragilis

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tataaaaaag ccgataatta tcaagtgcag gtcaaggatg ccgacgggtg ctctttatac 240
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acgggtacgg cgtcgttgga cgtaacagtg gataccggta cagaagataa ggatgtgaat 780
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<210> 4167
<211> 315
<212> DNA
<213> B.fragilis

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gcgataggct atcagtcagt agcttcttta ttatatcctt atttccgtgt gtcgcttggt 180
tcatctttat taccttctta ttacctatct atttataaat acacgcaact ccataacatc 240
cccaaagaa aattttaaat ctttaaaata aaaggggaagt tattaataaa tctcctctat 300
accttattat tatag 315

<210> 4168
<211> 192
<212> DNA
<213> B.fragilis

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ttctctattt ttctttttaa atttgtattg tttctccctg aaaaattgta tgtttgcaca 180
tcacaccgat ag 192

<210> 4169
<211> 1011
<212> DNA
<213> B.fragilis

<400> 4169

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<210> 4170

<211> 1548

<212> DNA

<213> B.fragilis

<400> 4170

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ggcaaacggg	atgcctgcac	ggacagtatt	ccccgtatat	atcccgatta	tgccggagtc	240
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<210> 4171

<211> 1638

<212> DNA

<213> B.fragilis

<400> 4171

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<210> 4172

<211> 189

<212> DNA

<213> B.fragilis

<400> 4172

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<210> 4173

<211> 1359

<212> DNA

<213> B.fragilis

<400> 4173

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<210> 4174

<211> 606

<212> DNA

<213> B.fragilis

<400> 4174

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ctcagttata	aagaaatagc	tattcgatta	tctatcagtg	aaaaaacagt	agagcgctcat	540
attaatgaag	ccttaaaaatt	tttacgtaag	aacatctatt	tatttttttat	atttctttct	600
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<210> 4175

<211> 1752

<212> DNA

<213> B.fragilis

<400> 4175

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<210> 4177

<211> 1491

<212> DNA

<213> B.fragilis

<400> 4177

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<210> 4178

<211> 1947

<212> DNA

<213> B.fragilis

<400> 4178

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<210> 4179

<211> 3423

<212> DNA

<213> B.fragilis

<400> 4179

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<210> 4180

<211> 1776

<212> DNA

<213> B.fragilis

<400> 4180

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<210> 4181

<211> 510

<212> DNA

<213> B.fragilis

<400> 4181

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aattatgtta	atgatttcat	tgtaaataag	gaatatattg	gagtattgtt	atgtaaacca	360
gaattgtcac	atttttataa	taaatctggt	tggaaattag	taccatattt	aaagttatta	420
tgtgagttct	cattaactaa	tatagagatg	atgacatata	attgtgaatt	taattataaa	480
caaattattt	ataaaggagg	gcctttttta				510

<210> 4182

<211> 264

<212> DNA

<213> B.fragilis

<400> 4182

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caggagaggg	gctatggccg	tagcatccta	aaggattttt	cgaacgacgc	ccaaatcaaa	180
tccttgcaaa	gtgatggcta	taatgtctat	atgtatcttg	atgatgagtt	gatagagggtg	240
ccgccttgcc	catgtgcgga	ataa				264

<210> 4183

<211> 486

<212> DNA

<213> B.fragilis

<400> 4183

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gcgaaagagg	cgcatactat	catagaaaagt	tggaaagata	aagaactttc	tgaagataaa	420
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<210> 4184

<211> 234

<212> DNA

<213> B.fragilis

<400> 4184

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caatatagcc	actatacaat	atcttgtgta	attctggcat	taaaatatca	gcaggaggaa	180
gataagggtt	cactaaaggt	atcattatta	tttatcttat	ttattttatac	ctaa	234

<210> 4185

<211> 285

<212> DNA

<213> B.fragilis

<400> 4185

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gaattaacgt	ttaagagtga	gaaagatat	atgcgctgta	tagatactgt	aactattact	120
atctcgaaaa	tggagattga	tttacctaaa	atagagattg	ttaagcaatg	tggtatgatt	180
gctgctaata	ctgtcttttt	aataaatagt	ttgacttcta	atattccata	tatgtttttg	240
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<210> 4186

<211> 231

<212> DNA

<213> B.fragilis

<400> 4186

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atttgcggca	tgtgggttgc	ctttgctctc	gatgaaaaca	ttcgcggaat	tatctttgtc	180
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<210> 4187

<211> 258

<212> DNA

<213> B.fragilis

<400> 4187

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gccggcaaaa	aagacaaagg	taacgccaa	cgaaatgcc	caaacatgaa	ttttgccc	180
tccgagccca	atggcgga	tcagggaag	aacgacaact	gcctgcaaag	cagaatgttc	240
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<210> 4188

<211> 1209

<212> DNA

<213> B.fragilis

<400> 4188

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gccaaacacg	gtattcagat	taccggagtt	gacattaatc	ctaaagtagt	tgaaatgact	120
aatttgggta	aattgcatat	tattgaacca	ggtatgcagg	cactgcttca	agaagtagtt	180
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<210> 4189

<211> 1296

<212> DNA

<213> B.fragilis

<400> 4189

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cctgccaaagt	ggatcatgac	tgcaaggcaa	tacgtgctga	atatctacac	agagaaccga	1260
gcttatgcaa	aacccttcaa	aacagaattc	ggataa			1296

<210> 4190

<211> 246

<212> DNA

<213> B.fragilis

<400> 4190

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ggtaaccgcc	ttgtaaaggt	cctgaccgga	cagagagggg	taggtaaagg	atgcctgttg	180
cggcagatca	tctatcagtt	gatgcgatgg	ggtgtttcat	cacgggacca	ttctatatat	240
aagtaa						246

<210> 4191

<211> 837

<212> DNA

<213> B.fragilis

<400> 4191

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agaaaaggaa	cccctgtatg	gaaactgatt	tgcagcacga	actggagtaa	catcggagca	780
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<210> 4192

<211> 525

<212> DNA

<213> B.fragilis

<400> 4192

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cagtttgtca	tccggcagtt	gaaatatcgt	cgaaaacggg	tggaaagtccc	tgttattaag	180
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cagatgcagg	acttcatatt	tgtcatggat	ttagatccga	atggcgctcag	tttcgataat	360
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ggcgaacttg	ccagcgaggc	caacaaaact	tatgttgcta	ttcgtattgc	cggtgtattg	480
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<210> 4193

<211> 1698

<212> DNA

<213> B.fragilis

<400> 4193

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<210> 4194

<211> 219

<212> DNA

<213> B.fragilis

<400> 4194

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ggtcttgatg	tagagcaaat	ttgggagtat	ggtaaagaac	gaggcgaaga	ttttttctct	180
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<210> 4195

<211> 312

<212> DNA

<213> B.fragilis

<400> 4195

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tgctttgccc	gaggggaaaa	tagtttcgta	tcattagaag	gtatgaatgt	agccgcccac	120
aagggtggat	atggacagtc	ttcaatat	cgtgatggcg	gtaggaaaag	cggcggctta	180
atgacgagtgg	ggtcttttag	agcgccaaac	ggatggggcg	aatatgcaaa	tgaaaagaac	240
caggctcggg	ctaaattggg	catctttccc	actaactata	tagacaaaga	ctccaagaaa	300
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<210> 4196

<211> 252

<212> DNA

<213> B.fragilis

<400> 4196

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ctgagaaact	cacacctttt	ggaggaattt	tttcaatcat	ggagaaattt	gactccatgc	180
tttcacccgt	tatcgactca	acactgggtc	agagatgcag	cagtatcttc	ggatatcagt	240
tcagcgagat	ag					252

<210> 4197

<211> 345

<212> DNA

<213> B.fragilis

<400> 4197

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attgaacata	aatgtgactg	ttcgaaactt	ccggccggga	cggtaatcct	aaaagtgatg	180
aagcgtcaga	atttgcccat	ttgggtggac	aagggtacgg	ttcaactcaa	caagttgatt	240
cctgccttga	agggatatcg	tttagagttg	ggttcgaatg	tgcatgtaga	tgaaacgtgg	300
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<210> 4198

<211> 390

<212> DNA

<213> B.fragilis

<400> 4198

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gcagtatcga	aaaacgaaat	gatgaaagga	aaatggaaaa	gacaaatcat	gctcgaaaag	120
gactacacag	aacagtgtct	cgaatggatg	gcagaacgac	tgggaagccct	catagaatat	180
atgcaatatg	gacatgcagc	cgtagcttat	atgaaacagg	acggaacatt	caaactgggtg	240
aaaggaacat	tggtgggata	cgaaaaagat	ttcggaaagc	agtatgatcc	gatggaaata	300
aaaaacacag	tggtctaccg	ggatgtggaa	caacaaaggt	ggatgacctt	caaaatagag	360
aatttcatgg	aatggagagc	gatcgtatag				390

<210> 4199

<211> 1095

<212> DNA

<213> B.fragilis

<400> 4199

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gtgggacgca	cacataagga	actggactta	ttggacggtg	cgcccgtaaa	gcagtttttt	180
gatgaggaaa	tgccggagta	cgtgtttttg	gctgccgctt	ttgtcggagg	gatcatggcc	240
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attacaatcc	gcgaactggc	cggactgatt	gtaaatacag	tcggctatca	gggtaaactg	960
acttttgaca	gcagtaaacc	ggacggaacc	atgcgaaaac	ttaccgatcc	gtcgaaattg	1020
cacaacctcg	gatggcatca	taagatcgat	attgaagagg	gggtacagag	aatgtacgag	1080
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<210> 4200

<211> 1161

<212> DNA

<213> B.fragilis

<400> 4200

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acgcaaccac	ttgacagtac	acagactaca	tatgtcaacc	tggggctttt	ctcggcaatg	180
cataagttgc	acggtgtagg	cttcaatgcc	ttcggaaagta	tgggtacagaa	caatatgaac	240
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gacaatatgc	gcggactgat	gatgagtgg	atcatgaata	tcacaggcga	taaagccgca	480
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tacgggtggca gccgttacta taacaaagcc aggacctacg acaaaggtgt gattgcggaa 1140
gcaggagtgg ttctgttcta a 1161

<210> 4201
<211> 252
<212> DNA
<213> B.fragilis

<400> 4201
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ggaatttcaa ttaattcttt ttgtctgac caagggtgtt tctatcgtaa ttttaatact 180
tggtttgtga agactcgcaa gagaatcggt ccggttcaga ttgaagggtt cctttttctg 240
atttccttgt ga 252

<210> 4202
<211> 210
<212> DNA
<213> B.fragilis

<400> 4202
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cgggataatc tgtagctac tgagactaag gaaaaatgta atgatatatta tattaatgga 180
atcggtgatg ccttatgtga tggactgtag 210

<210> 4203
<211> 192
<212> DNA
<213> B.fragilis

<400> 4203
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aataatgtta gttttgagat gctctataaa tctcagaaaa tggatatgac atttagaatg 180
caaaagatgt aa 192

<210> 4204
<211> 1173
<212> DNA
<213> B.fragilis

<400> 4204
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aaagtgtatt	atgaagaaat	gagtaaactg	gtgaatcctt	atggagatgg	aaaagctagt	1140
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<210> 4205

<211> 2022

<212> DNA

<213> B.fragilis

<400> 4205

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gaaaccgata	ttgacgattg	gtacctgatc	actctcaatc	agctggtaaa	ggtctgccag	420
aacgtatcat	ccaaatatac	ccgttcgaag	gttcgcaaata	cattgccggc	cgagttctcc	480
tatatcatcc	aggagttact	tcacgaatcg	accatcgagc	ccaataaaca	tgcttatatc	540
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gtgaaagata	ccgataagg	aaaagagctc	gtaacgcaaa	ttctggattt	aaagaagttg	1980
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<210> 4206

<211> 402

<212> DNA

<213> B.fragilis

<400> 4206

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tttaatgtaa	tactagctat	agtggtctata	ttttcagtag	tagcgacgaa	tttgggagct	180
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<210> 4207
 <211> 369
 <212> DNA
 <213> B.fragilis

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 cgttcttttc tatcagagct gaaaaaatat gccagagcat tccggaaaaa acgagatgaa 360
 agcgaataa 369

<210> 4208
 <211> 270
 <212> DNA
 <213> B.fragilis

<400> 4208
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 actgttcgaa acttccggcc gggacggtaa 270

<210> 4209
 <211> 186
 <212> DNA
 <213> B.fragilis

<400> 4209
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 ggcttcaact ctaaaaccgt taatgcaact tgtatcgcag aagcatatga gtttggtgtc 120
 agtaaatttt caatccctaa gaaagtcgat aatttttctt ctaaaagaag tccccacttt 180
 ccataa 186

<210> 4210
 <211> 891
 <212> DNA
 <213> B.fragilis

<400> 4210
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 gtacttatgt tagctggtat acgagaaata ctaattattt ctactcctca tgacttacgg 180
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<210> 4211
 <211> 1671
 <212> DNA
 <213> B.fragilis

<400> 4211
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 atttcgcttg gcgttacctt tgtctttttt gccggcattc tggccgggca cttcggattg 180
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<210> 4212
 <211> 1032
 <212> DNA
 <213> B.fragilis

<400> 4212
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 caaaaagatg gtcctatgtt agtagaacat gagtataatt cagagaatac gcatcgctta 960
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1032

<210> 4213

<211> 564

<212> DNA

<213> B.fragilis

<400> 4213

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<210> 4214

<211> 1125

<212> DNA

<213> B.fragilis

<400> 4214

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<210> 4215

<211> 1095

<212> DNA

<213> B.fragilis

<400> 4215

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<210> 4216

<211> 252

<212> DNA

<213> B.fragilis

<400> 4216

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<210> 4217

<211> 1077

<212> DNA

<213> B.fragilis

<400> 4217

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<210> 4218

<211> 1083

<212> DNA

<213> B.fragilis

<400> 4218

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catccggtag	gtaaaagtcta	tattttttatt	gaagaaatac	aaaaagtgga	gggctgggaa	180
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<212> DNA
<213> B.fragilis
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<210> 4220
<211> 1416
<212> DNA
<213> B.fragilis
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 <212> DNA
 <213> B.fragilis

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<210> 4222
 <211> 792
 <212> DNA
 <213> B.fragilis

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 aaaaccatat tcgggtgtatt cactttaacc ttcttcctgt ccgttatcca aaagttaacc 360
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 gacctgatca ttatctcttc cagctatttc gtactgaaag actgggaaaa ggtagtatat 600
 ggatagtga ccctttatgt ttgcagcttc gtactggacc aggtagtga cagtgcgcgc 660
 caatcggta aattctttat catctccaac aagtatgaag aaataggcca acgcatcaac 720
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<210> 4223
 <211> 825
 <212> DNA
 <213> B.fragilis

<400> 4223
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<210> 4224

<211> 2589

<212> DNA

<213> B.fragilis

<400> 4224

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<211> 291

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<213> B.fragilis

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<210> 4226
 <211> 510
 <212> DNA
 <213> B.fragilis

<400> 4226
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 aaacagaacg aaaagaagta cactgtgcag atcagtcgtg acggagccat gagagaaatc 420
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<210> 4227
 <211> 1578
 <212> DNA
 <213> B.fragilis

<400> 4227
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 <211> 819
 <212> DNA
 <213> B.fragilis

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<210> 4229
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 <212> DNA
 <213> B.fragilis

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<211> 303

<212> DNA

<213> B.fragilis

<400> 4230

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tattttgtacc	ctaaattatt	aaacagaaat	agaaaaaact	atgaagacaa	tcctactctt	240
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<210> 4231

<211> 1194

<212> DNA

<213> B.fragilis

<400> 4231

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gaaaataaaa	aaacgataag	acaatacgaa	attatgatta	atactttaac	atcgttgaga	180
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accatttttt	tcaaagaggg	atttgtaggc	gtcagcttct	tttttggtgt	aagcggcttt	300
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tcgctcactt	tgacaaatgc	ttatatccc	agagccgact	actttttctc	tttcaacagc	540
ccttcatgga	gtttatgctg	tgaacagctt	ttttacatct	gcttcccat	ccttataacct	600
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accgatttc	cggatttcat	tgtcggcatg	ttactgttcc	aattgtatga	acgcttgaaa	780
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ggtatcccgg	cacaaattgt	gggacgtatt	gaagagagtg	ataaaaaaga	actgattatc	1140
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<210> 4235

<211> 261

<212> DNA

<213> B.fragilis

<400> 4235

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aacagcacct	gtggacttat	tgtgaattcc	tctcgcgga	ttatttatgt	agataaaaaca	180
gagaattttg	ccgctgccgc	ccgtgctgct	gccaaagaag	tgcaagagca	aatggcgagaa	240
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<210> 4236

<211> 693

<212> DNA

<213> B.fragilis

<400> 4236

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cccagccatc	ttatttgcaa	tctttcggtt	ttttattact	tttacgccat	caataaaaaca	120
gtaacaacta	tgatatacag	atttaccatt	atatctgatg	agggtgacga	tttcgtcaga	180
gagatacaga	ttgaccggga	agctactttc	ttcgatcttc	atgaagctat	cctgaaagca	240
gcaaactata	caaacgacca	gatgacttct	ttctttatct	gtgatgatga	ctgggaaaaa	300
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gaagagatgg	cagccggagg	aggctcactc	gatctggatg	aaaacttcta	cggtgaccag	600
gacttcgata	tggaagactt	tgatgccgaa	ggatttgatg	taaatgacgg	tgacagccga	660
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<210> 4237

<211> 1113

<212> DNA

<213> B.fragilis

<400> 4237

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gccggcggat	ataaggagat	catttgcagc	gttacaggcg	ataatgtata	cggtagacta	540
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<211> 393
<212> DNA
<213> B.fragilis

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<211> 1107
<212> DNA
<213> B.fragilis

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<210> 4240
<211> 219
<212> DNA
<213> B.fragilis

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aagaagcgaa aaaagccgga taaaataaaa agagttacaa agggagcgtt attacataat 180
atttttagta tctttgtcga taataagaat atcccttaa 219

<210> 4241
<211> 1647
<212> DNA
<213> B.fragilis

<400> 4241

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<210> 4242

<211> 3543

<212> DNA

<213> B.fragilis

<400> 4242

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<211> 1389

<212> DNA

<213> B.fragilis

<400> 4243

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<211> 1254

<212> DNA

<213> B.fragilis

<400> 4244

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<211> 747

<212> DNA

<213> B.fragilis

<400> 4245

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<211> 756
 <212> DNA
 <213> B.fragilis

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<210> 4247
 <211> 1188
 <212> DNA
 <213> B.fragilis

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<210> 4248
 <211> 231
 <212> DNA
 <213> B.fragilis

<400> 4248
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<210> 4249
 <211> 1806

<212> DNA

<213> B. fragilis

<400> 4249

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<210> 4250

<211> 681

<212> DNA

<213> B. fragilis

<400> 4250

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gactttttgc	cgtcggttcc	tcagatgaat	gatttcttca	cctcttccga	ttctaccgac	480
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aaagagaatg	ggacattgac	ttttactttg	acaactccgg	aatatatgga	aaaagaaacg	600
gcggaaaaac	tgaaccgtt	tctccgccgt	tcaatagttt	acacctggaa	ggatgggaag	660
tttatcccag	acactctttg	a				681

<210> 4251

<211> 2112

<212> DNA

<213> B. fragilis

<400> 4251

cgaactgttt	ggactctgaa	gccatattta	ttccgagtcg	gaggattaca	ctttaaccat	60
tatgtattta	tgaagagatt	attatccgtt	tttttatttc	tattttgctg	cgttatagcg	120
gccgatgcac	aagacgatgc	cgcacagtat	gatttcgataa	tgaatctgat	gaaaaataaa	180
aagattccct	tgatggaacg	ttatttatatg	accggggata	tcgaatatct	ttcacgggag	240
catcagattg	ccgtgctgaa	gcaattgatt	ccggaagcga	aagagggtga	ggataaggcg	300
gtcattaccc	gtctttattc	cattgtagcg	atgttcgaaa	atcaacttgg	acatatgact	360
gaggctaaaa	actatctgga	cagtgccttt	atgaataagg	gaaagtgtga	aaacaacaat	420
atttccggta	tgatgcacta	cattgccgga	atctattatt	cggataagaa	cctgatggaa	480
caggcacatg	agaattatta	tcaggctgct	gagtatttta	atcgcaatga	aatgaagccg	540
gccatcttaa	cggagattta	ttatgatctg	tctatcattt	actcgatgtg	gcaagatgat	600
gagggattac	atgaattgtc	ggaagcgtatg	aaagacttac	cggtagattt	cccttttcag	660
cagatattga	agtggaccat	aaagggtgaaa	tacttttatg	ccttatatca	gaatgaacac	720
cgggtggatt	tgctggattc	tgtgacgaag	tataaccagg	aggcttttaa	ggtctacaca	780
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atagtttaca	gcgaggcggg	aaaaatcaag	gaagccgaac	agtgccttga	aacgggtaag	900
aaactgatga	atcctaaaaa	gatcgatgcc	aatgtttcgg	tcagttatgt	ttcgggagta	960
attgcctatt	atcaggcaga	ttatgaattg	gccgaacaac	atttacagga	cggactgcgt	1020
gagttgaagc	ggatggatga	agagcaggag	gtggattact	atcatgcttt	gattgaattc	1080
tatacactgt	tggtctaaag	atcgcagaag	caggaacttt	ataataaggc	tttggaggca	1140
gcccgttaatt	cactgaaata	tgaaactcgc	ttgtttgaca	aaaatagcaa	taagacgatc	1200
cagaaattac	ggacacaata	taatctgaat	gaaaaggaa	gggttgtgga	gcaattgtcc	1260
gctattaacg	aaaagaaccg	acggattaat	attctttcgg	ccattcttat	tgttctggca	1320
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atgttgcaga	ttgccaaact	aaagcagcag	gaagctgaac	ttctgggtta	gttgcagaag	1440
acaaaacttg	aggaaaggga	acgggagttc	cagtctttag	tgcatgaagc	gcaacagcgt	1500
aaagttcaat	attatctgga	aggtcttgag	gtggaaagaa	agcgattggc	gaaggaaactt	1560
catgataatg	tttccaatga	attattggcc	atcaagatga	aaatcaccga	tggaacaagt	1620
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aactttgaca	atttatcgca	gaagggtgtc	ctggagatct	atcgaattgt	acaggaagct	1860
gttggttaact	cgttgaagca	tgcacaagcc	acgttggtga	agattatcct	ggtgcgggaa	1920
gataacaagg	tgaaattgac	agtttcggat	aatggaagag	gatttgagca	acagaccggg	1980
aagacgggaa	ttggtcttac	tatcataaaa	gagcgtgtgg	aaaacctgag	gggaactctg	2040
actttgaact	ctgctccggg	aaaaggaaaca	gagctgatcg	tggaaatcga	tctggagaat	2100
ctggaaaaat	aa					2112

<210> 4252

<211> 240

<212> DNA

<213> B. fragilis

<220>

<221> unsure

<222> (12), (35), (87), (98), (136), (140)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4252

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cgattcctcc	ttacctcggt	catcacngcg	tacactgnta	cgagtctagc	gcgacgggag	120
cactgtcctc	acctcntatn	tcgtgtaatg	tcgtctcgtc	tattctctca	ttgtaataag	180
catgtggccg	gtactcgcca	cgacacactc	cagcttatct	cacctctcta	tagtaagagc	240

<210> 4253

<211> 195

<212> DNA

<213> B. fragilis

<400> 4253
 tctaataatta gcttcttcac ctcacggatg gactcttcgg gcgaaagccg ggatacttcc 60
 ttttttgtca actataaaaag agggcttaca cgtccgaaaa ctgaattaga ttccatgagt 120
 aaaagaaaac ttaccaccaa atttgaagaa gaacccccaa aaaatcgatc tttcatcttc 180
 caccctctgt tttaa 195

<210> 4254
 <211> 957
 <212> DNA
 <213> B.fragilis

<400> 4254
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 aaagcggtga aagacaatgc ggttttaccg gtgttggtct tcaatacact tttttccagt 180
 cttatatattc ttctttttat ttgttggtcg gcatttgcgc cggagtgct ggagggcact 240
 atgctcgatg tacgggtggg gggatgggaa gtacataaat ttattattat taaatcattt 300
 attgttcttt cctcgtggat actcggatat ttccggatga aacatctgcc tattactatt 360
 gtaggaccga ttaatgccac ccgtcccgta atgggtgcttg tgggagccat gctgggtattt 420
 ggcgagcgct tgaatctcta tcagtggatc ggcgtgatgt tggccattat ttcttttttt 480
 atgctgagtc gttcggggaa gaaggaaggt attgacttta aacataacaa gtggatactt 540
 ttcattattc tggcagccgt agcgggtgcg gtaagtggct tgtatgataa atacctgatg 600
 aagcagctgc ctcccatggt cgtacagtcg ttgttggtcg aaacgtaagt catctactcc gttccgttgg 660
 tgtcccattc ttgcgcttct ttggtggccg aaacgtaagt catctactcc gttccgttgg 720
 gattgggcta tcattttttat ttccatcttt ctctgtgctg ccgattttgt ttacttctat 780
 gcattgagct atgaagattc catgatttcg attgtctcga tgggttcgacg gggaagtgtg 840
 attgtatctt tccttttcgg tgctatggtg ttccgtgaaa agaattttaa aagcaaagcg 900
 attgacctta ttctggtgtt aataggaatg atattcctat atttgggaac taaataa 957

<210> 4255
 <211> 957
 <212> DNA
 <213> B.fragilis

<400> 4255
 ttatataaaa gtatgaaagc attaacaaaa acagatttca actttccggg acaaaaaagt 60
 gtgtaccacg gaaaagtgcg tgatgtgtac aacatcaatg gcgaacaact cgtaatggta 120
 gctaccgacc gtatttcggc ctttgatgta gtgttgcccc aaggtatccc ttataaagga 180
 caaatgctga atcagattgc agcaaaaattc ttggatgcaa ccacagacat ctgtccgaac 240
 tggaaaactcg ccactcccga cccaatgggt acagtgaggag tactctgcga aggtttcccg 300
 gtagaaatga tcgtacgtgg ctatctttgc ggaagcgcac ggctgtctta caaaaacggc 360
 gtacgcgaaa tctgtggcgt aaaacttcct gaaggtatga aagagaaacca aaagttccct 420
 gaaccgatcg tcaactccgac tacaaaagca gaaatgggat tgcacgatga agatatctcc 480
 aaagaagaaa tcctgggtca gggactggct actccggaag aatatgccat cctcgaaaaa 540
 tatacattag ctttgttcaa acgtggtacc gaaatagcag cggaacgcgg tttaatcttg 600
 gtagacacca aatatgaatt tggaaagcac aacggtacca tctatctgat ggacgaaatc 660
 catactccgg actcaagccg ttatttctac gccgaagggt atcaggaacg ttttgaaaaa 720
 ggcgaaagcac agaaacaact ttccaaagaa tttgtacgcg aatggttgat ggaaaacggg 780
 ttccaaggca aagaaggaca gaaagtccct gaaatgactc ctgctattgt ggaaagcatc 840
 agcgagcggt atatcgagct gtttgaaaac atcaccggcg aaaaattcgt gaaagaggat 900
 accagcaaca ttgccgaacg tatcgaaaag aacgtaatgg cattccttgc aaaatag 957

<210> 4256
 <211> 1200
 <212> DNA
 <213> B.fragilis

<400> 4256

agatttcaga	gtgaaatccg	cctctgtaaa	aacacttata	aatgtatgaa	gagaattcta	60
ttgttccttt	tggcctgttg	tcctatgctt	ctttgtgcac	aggaagataa	cagtaagtat	120
ctggccggtg	cagtaccctg	agtcaacgga	aaagtcattt	ttgcagaagt	aattcaagct	180
tccgatatgt	cgaaacggca	gatctatgat	gctttgttaa	aatgggcaga	gaagcgtttt	240
acaccttcaa	aaggacagaa	ggggagagtc	gcctattttg	atgggaaaaa	agggcagatt	300
gcatgtttgg	gtgaagagta	tttgcaactt	tcggcaacga	atagcttctt	cttggatcgt	360
gctactatta	aataccggct	ggtgattaac	tgcttgacg	gttcctgtaa	gatggagatg	420
tacaacattt	cttattttca	tggatgat	acagagatgg	aggcggaaga	ttggatcacg	480
gatgagaccg	gattgaataa	agccaaaacg	aaagtgggtg	ccaaatatgg	aaaactccgt	540
atcaaaaaca	tcgatctggt	tgatgacttg	acggagcagg	ttactccgga	gctgggagga	600
gcaaaatcag	aggttcctct	attggcaaaa	gaacctaaag	ttactccgga	agtgttcgat	660
cgggaatttc	caaaggctgt	ggagcaggga	gctatggcag	ggtataaaca	tattcctgct	720
gataagattc	cgggtaatat	cattaaaatg	ctctctgaag	attggatggt	gattacagcc	780
ggtacggaag	ataaatacaa	catgatgaca	gccagctggg	gctgactggg	gtatctctat	840
aataagccgg	tttcattctg	ttttatttat	cctacacgct	atacttatca	attgatggaa	900
aagaatgata	catatactat	cagcttttat	acagagactt	atcgggatgc	tttgaaatat	960
tgccggtagtc	atagtggcga	agatgttgat	aaagtgaaag	gcgcgggatt	gactcctctt	1020
actactcctt	cgggcagtaa	agctttctct	gaagcatgga	tgatcataga	atgtaagaag	1080
atgttatccc	agccgatcac	tcccggagcc	tttgatactc	cggagttgaa	agaagcatgg	1140
aaggataaat	ctttgcatac	gatgtatatc	ggtgagataa	tgaatgtgtg	ggtcaaataa	1200

<210> 4257

<211> 240

<212> DNA

<213> B.fragilis

<400> 4257

aaaggctgtg	gctccggagg	taaacgtgac	attgaatccg	gcagactaaa	aaatatattat	60
tgtgggggtg	tactcccaca	gaccaatgtg	tcaaaactca	ccatggagga	caagccttct	120
atcctcggtc	ggaaggatgg	aaaaaaacgg	gaaaatatcg	atttgaaaga	actttatcaa	180
ttatataatg	aaatagattc	gtatatttagc	caacgatata	acgaactgtt	tggactctga	240

<210> 4258

<211> 444

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (15), (137), (237), (243), (280), (303), (355), (366), (404), (408)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4258

gcttggtgtg	ggccttgcca	tacgggtacta	atgtgcgcga	tgatgtatgg	gtatgggtgag	60
gcacagccgg	ctagacgagg	tgatcatgtg	gatgcgctct	gtctacatcg	cctcgctgtg	120
ataatgcata	tgtgtanata	cgccttcgaa	cctctctctt	gtgatgagtg	tgcgcatgcg	180
ctacacagac	aacatcgtct	actactatgt	cttgctgttt	acatggcgcc	tgcgttntca	240
tcntgtctca	cgtacgtggt	cttgctgatg	gcgcagtcgn	cgcatgcacg	acgcacgcac	300
ganatcgagt	cactctcacg	gatactcacg	attcctcctt	acctcgttca	tcacngcgta	360
cactgntacg	agtctagcgc	gacgggagca	ctgtcctcac	ctcntatntc	gtgtaatgtc	420
gtctcgtcta	ttctctcatt	gtaa				444

<210> 4259

<211> 951

<212> DNA

<213> B.fragilis

<400> 4259

atgaaaaagg	gaattaagat	aggcgtcata	acattattat	tgctgcttac	cggatgtacg	60
------------	------------	------------	------------	------------	------------	----

ataggcgga	gttttttcat	gctcaattat	tcacttcgtc	cggaagcgaa	gatacgtgcc	120
aaaaatgctg	actcctatcc	tttcatatac	aagaattatc	cttttctgcg	tccctgggtg	180
gatagtctca	atcagggtca	tgcacttcgg	gacacttttg	ttttaaatcc	ggaaggtatc	240
cggctacatg	cttattacat	tgcagctccg	caaccaacca	aaaagacggc	agtcattgta	300
catggttata	cagacaatgc	cattcgcgatg	tttatgatag	gttacctgta	taaccatgat	360
ttacaatata	atgtactatt	gcccgaacctt	caacatcagg	gggagagtgg	tggtcccgcc	420
atccagatgg	gctggaaaga	ccgcctggac	gtaatgcaat	ggatgcacat	cgccaaccag	480
atttacgggg	acagtaccca	aatggtagta	cacggatattt	caatgggagg	agctaccacc	540
atgatggttt	cgggagaggc	acaaccttat	ttcgtaaaat	gtttcgttga	ggactgtggt	600
tacaccagtg	tatgggatga	attttcacat	gaactgaaat	cgagttttca	cctcccgtca	660
ttcccactga	tgaatacaac	cagctggcta	tgccagaaaa	aatacggatg	gaattttgaa	720
gaagcctcct	ctttgaatca	agtaaaaaaa	agtcactctac	cgatgttttt	cattcacggt	780
gacaaagaca	catacgtgcc	tacatggatg	gtctatcctc	tttatgaagc	caaatacgcc	840
ccaaagcaac	tctggattgt	accgggagct	gcacatgccg	tatcttataa	agagaacaag	900
gaagaatata	cccggaaagt	caaagaattt	acagaccgct	acattcactg	a	951

<210> 4260

<211> 1050

<212> DNA

<213> B.fragilis

<400> 4260

agtaagatta	tggagtcttc	ggctaagcaa	attgcagcat	ttatccaagg	ggaaattata	60
ggtgacgaaa	acgctactgt	acatacattc	gcaaagatag	aagaaggaat	accaggcgct	120
atctcttttc	tttccaatcc	gaaatacaca	ccttatatat	atgagactaa	agctagcatt	180
gtgttggtga	acaaagattt	tactcccga	caagaagtaa	aagcaacggt	aatcaaagta	240
gacaatgctt	acgagagcct	tgccaagtgt	ctcaatctgt	atgaaatgag	caaaccctaaa	300
agaaccggta	ttgacgaacg	tgcttatgta	gcggaaaccg	ctaaaaatagg	aaaagacgta	360
tatatagctc	ctttcgcttg	catcggtgat	catgcggaag	taggagacaa	cacagtgatt	420
catccgcatg	ccactgtggg	aggtggtgcc	aagataggca	gcaattgtat	cttgtacgcc	480
aactcgactg	tataccatga	ttgccgggta	ggtaataact	gtattctgca	tgccgggatgc	540
gtgatcggag	cagacggttt	cggttttgcc	cctacccac	aaggatacga	aaaaattccc	600
caaatacggt	ttgtttatcct	ggaagacaat	gtagaagtcg	gcgccaatac	ttgcatcgac	660
cgtgcaacca	tgggagcaac	cgttattcat	agcggagtaa	agttggacaa	tctggtccag	720
atagcccaca	acgatgaaat	aggttcgcat	accgtcatgg	ctgcccaggt	gggcatcgca	780
ggttctacca	aggtaggcga	atggtgtatg	ttcggcggac	aagtaggcat	tgccggacat	840
ctcaaaatag	gcaaccaagt	gaatctggga	gcccaatcgg	gtgttcccgg	aaatataaaa	900
tccggtagcc	aacttatcgg	aactccccct	atggagctaa	aacaattttt	caaagcatcc	960
attgtacaaa	aaagccttcc	ggagatgcag	attgagttac	gcaatctccg	caaagaaata	1020
gaagaattaa	aacaacaatt	aaataagtaa				1050

<210> 4261

<211> 915

<212> DNA

<213> B.fragilis

<400> 4261

ccaatcggtta	tgactgccaa	aactttaatt	gtacttatag	gtcctacagg	tgtaggaaaa	60
acggagttaa	gcctccgcat	agcagaatat	ttcaagacga	gtatcatttc	gtctgactcc	120
cgacagttat	acgccgaact	taagatagga	acggctgctc	cgaccccgga	gcaattaaaa	180
cgggttccac	actactttgt	aggtaccctg	caacttaccg	attattacag	tgccgcccaa	240
tacgagacgg	aagtaatgag	tgttctcgaa	cagttatttc	aacaacatca	tgtcgtcctg	300
ctcaccggag	gctctatgat	gtatgtggat	gccatctgca	aaggcattga	tgacataccg	360
acagtagatg	ccgagactcg	tgagctcttg	ctacataaat	atgacacaga	aggactcgat	420
aatctctgtg	cgaactgaa	gctactggat	ccggagtact	ataaaattgt	agatttaaaa	480
aatcccaaac	gggtcattca	cgccttggag	atctgttaca	tgacagggaa	aacttatacc	540
tctttccgta	cacaacaaaa	aaaggaacgc	ccgttccaca	tcctaaaaat	aggactgacg	600
cgagatcgcg	ccgaattata	tgatcgcctc	aaccgtcggt	tagaccagat	gatgaacgaa	660
ggattgctgg	aagaagcccc	ctccgtatat	gccaccggag	agttgaactc	cctgaacact	720

gtaggctata	aggaaatatt	taaatatctg	gatggagagt	gggatcttga	cttcgctatc	780
gaaaaaataa	aacagaactc	acgtatctac	tcacgcaaac	aatgacctg	gttcaaacgg	840
gatgaagaga	tcagatgggt	ccatcctgaa	caagagaaag	aatattatc	gtatcttcag	900
gtctcaatta	aataa					915

<210> 4262
 <211> 795
 <212> DNA
 <213> B.fragilis

<400> 4262	
agcagtatct	60
tatttagcct	120
atacaagaat	180
ggggcgggac	240
gaaggtgaac	300
gatatttcgg	360
acagcacgta	420
cggatcggga	480
tttcattatt	540
tgtaaagatta	600
caggcagacc	660
gggcgtggca	720
aaagccggta	780
gagatattcg	795

<210> 4263
 <211> 1128
 <212> DNA
 <213> B.fragilis

<400> 4263	
aaaaaagtca	60
ggatgggtcta	120
gagctgcaca	180
aattttacaga	240
tggatactcc	300
gtacacttgc	360
gcttgtgacg	420
gttggttgcca	480
ctcaatcaat	540
accgatcagc	600
gccatatgca	660
aaccaaggaa	720
aacgatgatg	780
ttaagtttta	840
tgccctaaat	900
aatggagtaa	960
cgacgccaac	1020
ggaggattcg	1080
ttcggaggcg	1128

<210> 4264
 <211> 693
 <212> DNA
 <213> B.fragilis

<400> 4264	
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gaaccgcgca	atattaaagg	agtggtgagc	tataaacgtt	cgtttggaga	tctgaatgat	180
gtacagttaa	aagcagcaca	tgcgtggggc	attgcaccat	tggcttcgcg	cgaagaagcg	240
gaagagatgg	atggaaagtt	agttcatatt	gtcgataatg	acttttatgt	ggtagactca	300
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gcaaatttct	tggattcatt	gactgctaag	gggctcaatc	cgaataaaat	tattgtaact	420
tccgtactta	ggacggagaa	tgacgtaaaa	cgcttgcgtc	gtcgaaatgg	gaatgcatcg	480
aagaatttct	gccattttta	cggaaactaca	ttcgatgtga	gttggaaacg	gtttaagaaa	540
gtggaagatg	aggatggacg	tcctcttcag	gatgtgagtg	ctgatacttt	aaagctggta	600
ttggccgaag	tcttgcgga	tgttcgtaag	gcggataaat	gttatgtaaa	gtacgaattg	660
aaacagggat	gttttcacat	aacaacacgc	taa			693

<210> 4265

<211> 1023

<212> DNA

<213> B.fragilis

<400> 4265

attgattcaa	tgatagaaaa	actgatagtt	cttgaggata	ttgatccggt	catctttttac	60
ggcgtaaaaca	acgccaacat	acaattaata	aaagctttgt	atccaaagct	acgcattgtt	120
gcccagggca	atgtcatcaa	agtgtctggc	gatgaggaag	aaatgtgcgc	ttttgaggac	180
aatatcacca	agcttgaaaa	atattgtgcc	gaatacaatt	cgctgaaaga	agaagtcatt	240
atcgacatca	ttaaaggtaa	tgcaccacaa	gctgaaaaag	cgggaaatgt	tattgtattc	300
agcgtcacag	ggaaacccat	cattccacgt	agcgaacc	aactgaaatt	agtggagggg	360
tttgccaaaa	acgatattgt	atttgctatc	ggaccggccg	gttcgggcaa	gacttataca	420
gcaatcgctc	tggccgttcg	tgcactgaag	aacaaagaaa	tcaagaaaat	aattctcagt	480
cgccccgcgg	tagaagccgg	tgaaggtta	ggctttcttc	ccggagatat	gaaagataaa	540
atcgatccgt	atctacaacc	actctatgat	gctttacaag	acatgattcc	ggcagccaag	600
ctgaaggaat	atatggaact	gaacatcatt	cagatcgctc	cgctcgcttt	tatgcgcgga	660
cgtacactca	atgacgcagt	agtcactctg	gacgaagccc	aaaacaccac	tacccaacaa	720
attaaaatgt	tcctcacccg	tatgggaatg	aatactaaga	tgatcattac	cggtgacatg	780
accagatcg	atcttcgggc	ctcacaacaa	tcgggattgg	tacaggcatt	gcgtattcta	840
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<210> 4266

<211> 999

<212> DNA

<213> B.fragilis

<400> 4266

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999

<210> 4267

<211> 240

<212> DNA

<213> B.fragilis

<400> 4267

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cgcgggctcg	gcaaaggagt	gaaaagtttt	aaagaagggg	tgaatgaagc	caaagaggaa	180
ataaacaag	caaaagaaga	aatcgacgaa	ccggaaaaca	aagaaaagaa	agataactga	240

<210> 4268

<211> 186

<212> DNA

<213> B.fragilis

<400> 4268

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tatcacatga	ccaatcgta	tgactgcaa	aactttaatt	gtacttatag	gtcctacagg	120
tgtaggaaaa	acggagttaa	gcctccgcat	agcagaatat	ttcaagacga	gtatcatttc	180
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<210> 4269

<211> 408

<212> DNA

<213> B.fragilis

<400> 4269

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gtagtacgcg	aatcggaact	tagtaaacgt	acgctgaaaa	gtgtaattag	caagtatttc	300
aataattcgt	atctcagtcg	tgtgtcgtca	ttggtgaagg	aagaagatat	ttcgcttgac	360
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<210> 4270

<211> 1314

<212> DNA

<213> B.fragilis

<400> 4270

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ttcgggttta	tcaacatacc	aaaggggttg	ctgtacgaca	tcgtacggca	tccccttttg	180
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<210> 4271

<211> 864

<212> DNA

<213> B.fragilis

<400> 4271

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accaaccacg	taaaaataat	gagtctcgtg	aaccgcgtag	caacgagaac	cgggaaacgc	300
gtaaaaacga	accccgtaga	cagcgccctc	ctcgcgaaac	acgcggaccg	cgcaacaatg	360
aacaacctaa	acgtatcgag	aaagctcagg	aaaatgaaaa	gcctgctcaa	gaatagcatt	420
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tatactttca	agatagtaca	cgaaatgaag	aatgaacaac	taaccgggat	cagtgatgtg	840
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<210> 4272

<211> 525

<212> DNA

<213> B.fragilis

<400> 4272

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gcgatttggt	ccggagggtt	gacgggtaaa	ggttttctga	atggtacaca	aaccaagctg	180
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<210> 4273

<211> 348

<212> DNA

<213> B.fragilis

<400> 4273

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gggatcggtt	cgattaaagc	aagtatagat	acgattaaag	caggatagag	tgtgattagg	180
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agagcaggta	taggtgtatt	taaagcaaat	gccggtgcaa	tccggaagaa	catttgcgat	300
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<210> 4274
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 <212> DNA
 <213> B.fragilis

<400> 4274
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<210> 4275
 <211> 192
 <212> DNA
 <213> B.fragilis

<400> 4275
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 cctccgagag ccaaggcatc cgccatgcgc ccttatctac tttcttttat cgccagggat 180
 catttctttt ga 192

<210> 4276
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 <212> DNA
 <213> B.fragilis

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 gtatatcggg atttaggcaa cggacttttt cagcgcaacc gcctgagaag acgtccggga 360
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<210> 4277
 <211> 183
 <212> DNA
 <213> B.fragilis

<400> 4277
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183

<210> 4278
 <211> 288
 <212> DNA
 <213> B.fragilis

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 cagtcggtttc ttctcaataa ctgtcttgcg agagcggtgt cctacaaccc cacacatgcc 180
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<210> 4279
 <211> 1479
 <212> DNA
 <213> B.fragilis

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<210> 4280
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 <212> DNA
 <213> B.fragilis

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<210> 4281

<211> 294

<212> DNA

<213> B.fragilis

<400> 4281

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atagttcccc	ccccaggggg	gagtttgcca	tttttcgccc	gtccatacgc	cctgcaggga	240
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<210> 4282

<211> 2487

<212> DNA

<213> B.fragilis

<400> 4282

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<210> 4283

<211> 978

<212> DNA

<213> B.fragilis

<400> 4283

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<210> 4284

<211> 1047

<212> DNA

<213> B.fragilis

<400> 4284

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<211> 1449

<212> DNA

<213> B.fragilis

<400> 4285

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<210> 4286

<211> 3309

<212> DNA

<213> B.fragilis

<400> 4286

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<210> 4287

<211> 2823

<212> DNA

<213> B.fragilis

<400> 4287

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<211> 675

<212> DNA

<213> B.fragilis

<400> 4288

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<211> 1320

<212> DNA

<213> B.fragilis

<400> 4289

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<211> 3684

<212> DNA

<213> B.fragilis

<400> 4290

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<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

<400> 4294

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<210> 4295

<211> 360

<212> DNA

<213> B.fragilis

<400> 4295

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<210> 4296

<211> 1647

<212> DNA

<213> B.fragilis

<400> 4296

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<210> 4297

<211> 1599

<212> DNA

<213> B.fragilis

<400> 4297

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<211> 282

<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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 <212> DNA
 <213> B. fragilis

<400> 4300

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<210> 4301

<211> 1650

<212> DNA

<213> B.fragilis

<400> 4301

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<210> 4302

<211> 2076

<212> DNA

<213> B.fragilis

<400> 4302

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<210> 4303

<211> 1566

<212> DNA

<213> B.fragilis

<400> 4303

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<210> 4304

<211> 195

<212> DNA

<213> B.fragilis

<400> 4304

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<210> 4305

<211> 2022

<212> DNA

<213> B.fragilis

<400> 4305

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<210> 4306

<211> 630

<212> DNA

<213> B.fragilis

<400> 4306

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<210> 4307

<211> 3282

<212> DNA

<213> B.fragilis

<400> 4307

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<210> 4308

<211> 1305

<212> DNA

<213> B. fragilis

<400> 4308

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<210> 4309

<211> 2019

<212> DNA

<213> B.fragilis

<400> 4309

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<210> 4310

<211> 216

<212> DNA

<213> B.fragilis

<400> 4310

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gaaggggata	aatctagtat	aaaaatcaga	ctcattcatt	tactaaagaa	tgaattaatg	180
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<210> 4311

<211> 1557

<212> DNA

<213> B.fragilis

<400> 4311

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<210> 4312

<211> 1590

<212> DNA

<213> B.fragilis

<400> 4312

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<210> 4313

<211> 522

<212> DNA

<213> B.fragilis

<400> 4313

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caaatacaat	acatctgtct	catattcagc	caagaatata	taaagcataa	ttttcaaaac	360
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<210> 4314

<211> 3357

<212> DNA

<213> B.fragilis

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<213> B.fragilis

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tttgccgatc	tggacggaaa	cctgctgata	gcgaacgacc	gcttcaagg	gatggaagt	1140

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<210> 4320

<211> 1356

<212> DNA

<213> B.fragilis

<400> 4320

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caacgattgc	tggcggtatt	ctgcctgacc	gaatcccagg	tgaaagacta	tatccgcaaa	180
tacattccc	acgtgacgga	cgaacagatg	cgccaatggg	aagagagcaa	ggcgcttgag	240
tgccgggtga	tcgacggaga	gaaacgttat	ttccgcaatg	ccggtcccaa	cctgttccgg	300
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gtcaacagcg	attattccat	gccgctggtg	ccggagaaga	aatatccgcg	tagtgaaacc	1260
gttgatttcc	agcgtggcga	gggtggagtgg	gaagggggca	acctgtactt	cccgcagtgg	1320
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<210> 4321

<211> 213

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (50)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4321

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cggtttctga	acacccttat	atttctctct	tctcgtgacg	ccgacagccc	gaagaggtgt	180
gtgggtgttg	taaaaacgcg	atttgtgcga	tag			213

<210> 4322

<211> 1221

<212> DNA

<213> B.fragilis

<400> 4322

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ttgtccggtg	aagtccgcga	ccgcttcatt	cccgataagc	gtgtcatcct	ttgggatgtg	180
gattacgatg	tatccggaaa	gacgattacc	gtaaaggggg	caactacttc	gccggaagct	240
aaggcggctt	tgttatcggg	gctggaagag	aaggcttatg	aagtaaagga	cagcctgcaa	300

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gcggatgccg	gtgtgcggaa	gggcttcac	atcctgaaag	ccaacgatca	gcctatgcgc	1440
aaagtcagcg	accttgaaga	agtgatgaaa	gctgctgtga	agtcaccgaa	ccagggtactc	1500
ttcctcacag	gagtattccc	ttcaggaaaa	cgcggtctatt	acgctgtaga	cttgactcag	1560
gagtga						1566

<210> 4325

<211> 408

<212> DNA

<213> B.fragilis

<400> 4325

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tttaccgata	cggtgatata	ctacaccgaa	attcagatgc	ttgacagcgt	ggcgtggat	180
aaaaacggat	tcctgccgca	tagagaactg	tacagttatc	agttgaagaa	ttatttggaa	240
ttcgataaag	gacttcctaa	ccgtacttgt	atgatctatt	tctcggaaaa	taaaaagaaa	300
ttaggaaaag	aggccgcaa	ggttgtgggg	aaattcaaga	agaataaaac	ggtggctgtc	360
gagaaaatcg	atcctcagaa	tttcgggttc	agtaaaccag	aagagtaa		408

<210> 4326

<211> 693

<212> DNA

<213> B.fragilis

<400> 4326

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gaactggccc	agcaggtgat	tgtccgtgaa	cgcaggggtga	atgctttcga	attgaagata	180
gacagcgacg	tggaagacgt	gatcgcttta	tataatccgg	tagctatcga	ccttcgcttt	240
gtgttggcca	tgttgaaaat	caacaccaac	ctggagcgtc	tgggcgactt	tgcagaagga	300
atcgcacgtt	ttgtagtga	gagtgaagag	ccggttctgg	atgaagagtt	actgaaacga	360
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actctctcgt	gcctcaatct	ggtgggagta	ttccgtaaat	tggaacgttc	cggcgaccat	600
ataacgaata	ttgcagaaga	gatagtcttt	ttcatcgatg	ctaaagtctt	gaagcatagt	660
ggcaaggtag	aagagcatta	tcctgctaaa	taa			693

<210> 4327

<211> 210

<212> DNA

<213> B.fragilis

<400> 4327

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gctcttatcg	gaaacggaat	ttatttcacc	acagattaca	ccgattttca	cggattatat	180
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<210> 4328

<211> 1320

<212> DNA

<213> B.fragilis

<400> 4328

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gtgaacgacg	aagtagacga	ctctctggag	gattactcgg	aaaccatcat	tatccgtgcc	180
ctggccggag	aagaactgcc	ctcgaaaaac	aatgggtcga	acaatcaata	ctatcttaga	240

aaagtaagca	aagagtatgc	cgacgaacgc	gaagatatct	gctacaaaga	ctccatgggtc	300
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aaagacgcca	tgtctgggatg	gattatTTTT	ctgtacatcg	tcctgctgct	caccatcctg	480
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atgctcaagc	gatatataga	agattataaa	gaagtatacg	gctatcggga	aattgagctg	960
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gaaataaccg	gtcatagcat	gaccttcagg	aatagcggcg	caggccgccc	cctggatgcg	1140
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cttgccatag	ccgactccat	ctgcaaatta	cagcatctca	cactcaggta	ttatTTTtgag	1260
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<210> 4329

<211> 1185

<212> DNA

<213> B.fragilis

<400> 4329

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atagcccaga	actctttggc	accgttggcc	tcggccgata	ttgaagagat	gaaagagggga	180
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gattatgata	gttggcggga	ggcgttcgat	aaggtaatgg	tttactggaa	atccactccc	1020
cgcaactatt	ctgcctacgc	cgggatgttc	acgatgaatc	aggatacgaa	agggttttct	1080
acctatatct	cccgtatgtc	cgtccgtcgc	ttgaatactt	cttaccagca	gactgaatgg	1140
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<210> 4330

<211> 288

<212> DNA

<213> B.fragilis

<400> 4330

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actacgaatc	aacaacttaa	aatcgtctct	gtgttactct	gtgtgctctg	tggtgagtat	120
ggccatacca	gcgaatcgcc	tgccgaaaaa	gtattcggta	gcttaataat	agctaaggaa	180
atcgaaaaga	gggtaccggc	aatcaaccag	tcggtactct	ttttgtttat	attagtagat	240
aataatggtg	aaaaagttgt	gaaaattttat	acgttaacaa	ataaatag		288

<210> 4331

cttcacagca	gctttcatca	cttcttcaag	gtcgtgact	ttg'gcacatag	gctgatcggt	60
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tccggttaacc	tgaagccgt	atccgagatt	gagttgtttc	ttcaagtcgt	ccggcaactc	180
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ttcgtttttc	aatgttatat	tgatattctt	ttctttcttg	tcacgcacac	ccttcacggt	300
cactttatcg	cccggacgat	gctgtgcaat	ggcttcctgc	aggtcggcaa	agttctgcac	360
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gccttgaggc	gaagaaagca	cggcattgat	acctaccaat	tcaccttttg	cattcaccaa	720
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cccgatgccg	tacacaccga	gcgtacgtgc	cttggcactg	acgataccgg	cagttacagt	840
cgaggtaaga	ttgaacgggt	tacctaccgc	caatacccac	tctcctactt	tcaaggcatc	900
agaatcgccc	acggggatgg	tcgggaaatc	gtctccctcg	atcttgacca	gagccaaatc	960
cgaattcggg	tcgggtaccga	tcattgcgacc	tttgaactcg	cggttgtcat	tcaacttaac	1020
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aatgatgaca	ccggaaccga	agccgacacg	cggctgggtc	tgtacacggc	gctgctgtct	1140
gccgccatta	ccgaagatat	ccccgaatat	ctctgcaaac	gggtcgcgta	cggtcacagt	1200
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cgtatagggt	gtcactccgg	caactcctgc	actagaaga	actactgctc	ctatcccagag	1440
aatgtttttt	gttgtctgtt	tcatactatt	ctttttattc	atttaattgt	taatattcta	1500
ctttcattta	acatttacga	cgtaaaaata	acgacaaaaa	tcattctgtt	attctccttg	1560
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<210> 4334

<211> 387

<212> DNA

<213> B.fragilis

<400> 4334

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ctgatagaat	cgttcaaaga	tatgggtcgc	atccaggggg	cggcctgcgc	cgctattcct	120
gaaggtcatg	ctatgaccgg	ttattttcaat	ccggatatgc	ccaccgtcta	cgttgtgtac	180
aaacgcattt	ttgagcaggt	tcgttatcag	ggctactgcc	agcgattcat	tcactctccg	240
ccggaatatt	ccctgttcat	ccagcgtcag	ctcaatttcc	cgatagccgt	atacttcttt	300
ataatcttct	atatatcgct	tgagcatgct	gttgaactct	accgttcggg	tatcggagaa	360
ttgtccgtta	tctatttttg	acagtaa				387

<210> 4335

<211> 570

<212> DNA

<213> B.fragilis

<400> 4335

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atccttgaag	cgggacggct	ggcaccttct	gacctgcaatg	ccagccttg	gaggttcgtg	180
gtagtaccg	atccgtcatt	ggcggagaag	gtcggtaagg	ctgctgcggg	cttgggaatg	240
aataaatttg	ccaaggatgc	tccggtgcac	atcctcgttg	tagaagagtc	tgccaacatt	300
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ctggatatct	tgatcggata	tccggtgaaa	gagaaacgaa	agaagatccg	gaaagaaagc	540
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<210> 4336

<211> 378

<212> DNA

<213> B.fragilis

<400> 4336

accctgaagg	gtgccgcgct	ttgggatgaa	gtgaaggaca	aactgaaaga	atcggctttt	60
gccttgtccg	gcggacagca	gcagcgtctt	tgtatcgcac	gcgcaatggc	tgtatcgctt	120
tcgggtgctg	tgatggacga	acctgcttcg	gcgctcgacc	ctatttcgac	ggcaaagggtg	180
gaagagttga	tacacgagtt	gaaagaaccg	tataccattg	tgattgtgac	gcacaatatg	240
cagcaggctg	cagctgtcag	tgataagacg	gcgtttttct	atatggggca	gatgggtggag	300
tttggcgaca	cgaagaagat	ctttacgaac	ccgggagaagg	aagcgacaca	aaactatata	360
accggacgtt	tcggatga					378

<210> 4337
 <211> 1356
 <212> DNA
 <213> B.fragilis

<400> 4337
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 ttctcgatat acaatatcat caaaacgata tatctctgcg tcaaccgctt caacaaagac 180
 cgcattgtca ataaagcctc agcgtgacc tacagcacc tgctcgccat tgtgccata 240
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 aatgtagcgc tattgtctga cgggctggac acatacggct cagaagattt taaagtcgat 1260
 aaagacgagg aattcagcga gcaatggaag gttttgcttg actccaggga agaataattat 1320
 aaaaaggcaa gcaaagtatt gctgaaggac ttgtag 1356

<210> 4338
 <211> 474
 <212> DNA
 <213> B.fragilis

<400> 4338
 ttgctaaaaa taaaaaccaa taaaaaaaag acgattatga aaaagttact tcttttattc 60
 gtatgcctgt tcaactctga aaccatcgca agagcggacg atgataaacc gattcaagta 120
 agccagatgc cgcagaaggc acagcagttc atcaaacaac actttgccgg cagcaacatt 180
 gccatggcca aagttgaaag cgatttctta cagaaaagct acgatgtcat cttcaccgac 240
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 gtagtgccac agggcatcat cccctctcct atccaaaaat atacagccac taattatccg 360
 gacgctaaag ttctgaaaat agaacgcgat aaaacggatt atgaagtga actatccaat 420
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<210> 4339
 <211> 852
 <212> DNA
 <213> B.fragilis

<400> 4339
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 aacgcattta ccgaaaagta tccgtctgtc agcaacgaaa agtgggaaac aaaaggcaac 180
 tattacatag cggaattccg tcaacagaa tacgaaacct cggcctgggt tactccgaac 240
 ggaatatggc aaatgacaga gaccgacctc ccttatcagg ctctgccggc agctgtgaag 300
 agtgcattcg aaagcagtga atacgccaag tggaaagtag acgatgtgga catgttgga 360
 cgtccggaca tggagaaggc atacgtcatc gaggtagagt ccggaaagca ggaattcgac 420

ctgtattact	cggaagaggg	tatcctgggtg	aaaagcgttg	cggatacggg	caacgattca	480
gagaactatc	tgcttgcgga	gattccggca	gccattgaga	cctttatcaa	aaagcaatat	540
ccaaacgcac	gcctgggtcga	gatcgaagtg	gagcacggga	tgactgaggt	agacatcatc	600
gacggtaata	tcagtaaaga	aattgtattc	aacagctcta	acgaatggat	atctacttct	660
tgggacgtac	gccgcaacga	actaccggaa	acagtgaccc	atgcgatcgc	ttcttcagag	720
aaatatgcgg	gatatcaaat	cgatgacgca	gactttgttg	aaacacccgg	aggagaatat	780
tatctggttg	aactggaaaa	aggagaattg	gaagtgaag	taaaggtgaa	cgctgaagga	840
gagtttatct	ga					852

<210> 4340

<211> 711

<212> DNA

<213> B.fragilis

<400> 4340

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ccctcactga	gggaactgat	ccagcgttcg	ctcgaaaaag	aacgctatgt	agtggaagct	120
gccgcagact	tccagtcggg	attacgcaag	atagaggact	acgattatga	ctgtgtcttg	180
ctggacatta	tgttgctga	cggcaatggg	ctgaacctgc	tggagcaact	gaaaaagatg	240
cgtaaacggg	aaaacgtaat	tatcatatcg	gccaaagact	ccctggacga	taaagtactg	300
ggactggaac	tgggtgccga	cgactatctg	cccaaaccct	ttcacctggc	cgaattaaat	360
gcccgcacga	aaagtgtgat	ccgacgccag	cgccgcgacg	gagaaatgga	catacgccctg	420
gccaacatac	gtattgtccc	cgatacattc	caggtattcg	tagatgacaa	ggaaatagaa	480
ttaaaccgca	aagagtatga	tatccttctc	tactttgccg	accgtcccgg	acgactggta	540
aacaaaaaca	cgcttgccga	atcgggtgtg	ggagatcata	tcgaccaggt	agacaatttt	600
gatttcatct	atgcgcaaat	caagaacctg	agaaagaaac	tcaaagatgc	cgggtgccttg	660
gcagaactga	aggctgtata	tggattcggc	tacaaaatga	ctgttgaata	a	711

<210> 4341

<211> 285

<212> DNA

<213> B.fragilis

<400> 4341

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gaattaacgt	ttaagagtga	gaaagatatt	atgcgcgtga	tagatactgt	aactattact	120
atctcgaaaa	tggagattga	tttacctaaa	atagagattg	ttaagcaatg	tggtatgatt	180
gctgctaata	ctgtcttttt	aataaatagt	ttgacttcta	atattccata	tatgtttttg	240
gataggctca	ggggcgtaaa	agttacttgg	gataaaaata	aataag		285

<210> 4342

<211> 1158

<212> DNA

<213> B.fragilis

<400> 4342

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gctagttttg	caccaatttc	taccccaagg	gcaaataagag	caactgaact	ggcgaaagaa	120
tttgcgaaac	aagggttggtt	agttacagtc	tataattgta	cttcggttgt	agatggcaca	180
tttaatatata	atgaaaatat	tagagttggt	gatttgaata	tacgtaaagc	tagtattatg	240
aaatcttcaa	ctaaaaataa	tgttacatat	accatttttag	ataaaggat	tattttgatt	300
agaaaattag	tatattactt	tttcttggtt	tcattggctgc	tttatttatt	tggcttaaaa	360
aagaaactaa	gatttgatga	taaatatgat	ttattaattt	ctataggact	accttttaca	420
atccattggg	gggtatcggt	agaatacat	ggacataata	tagcaagatg	ttacgttgct	480
gattatgggt	atccattttc	gagaggtaat	gataacttga	aatgtgctaa	gtattttcaa	540
tggatagaaa	aaaaagtaat	agataaattt	gattatataa	ctatttcctac	ttacaatgca	600
atagattctt	atacttgggt	aaaaagttcg	gattgtatta	aagttattcc	acaaggattc	660
aatttttctg	aagtttaagac	acttgattat	gtacccaata	aaatacctac	atztatctat	720
gctgggtattt	tctattcggg	tatacgaaat	ccaaagaatt	tatttgatat	tctacttaaa	780

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agatttagctc	taatagaaaa	gttgagtgtg	gctgattttt	taattaatat	gagcaatact	960
tcagccaatc	agatacctag	taagttgatt	gattatgctc	tatctcacag	acctattttat	1020
tcttgtagac	ctaattctat	tgacttagat	aaattaatta	gcttttgtaa	gggagattat	1080
accggttctg	aaaatatcaa	ccttagagat	tacgatatta	ctactatagt	aaatagtttt	1140
ttttcttttaa	tgcaataa					1158

<210> 4343

<211> 1296

<212> DNA

<213> B.fragilis

<400> 4343

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agatgcagca	gtatcttcgg	atatcagttc	agcgagatag	tccgttcgct	gatgagcggt	180
tatttctgtg	gcggctcatg	cgtggaagat	gtaacgtcac	aactgatgcg	ccatctctcg	240
tatcatccta	cccttcgtac	atgcagctct	gataccatcc	tcagagccat	caaggaactg	300
acacaggaaa	acatctccta	tacttccgac	caaggcaaga	cctatgattt	caatactgca	360
gacaaaactca	acacattgct	tataaacgct	ttggtttcta	caggcgagtt	gaaggaaatt	420
gaggaatac	atgttgactt	tgaccatcag	ttccttgaaa	cggagaagta	tgatgcaaaa	480
ccgacctaca	aaaagttcct	cggctacagg	cctggcggtat	atgttatcgg	tgacaagata	540
gtctatatcg	agaacagcga	tggtaacacg	aatgtgcgtt	ttcatcaggc	agacacccat	600
aagagattct	tcgctcttct	ggaatcccag	aacatccgtg	taaatecgctt	cagggcagac	660
tgcggttcct	gctcgaagga	aatcgtcagt	gagatagaga	agcattgcaa	acatttctac	720
atccgtgcc	accgatgcag	ttcgctctac	aatgacatct	ttgctctgag	aggatggaag	780
acggaggaga	ttaacggcat	ccagttcgaa	ctcaattcca	ttctcggtga	gaaatgggaa	840
ggcaagtgc	atcgctcttg	catccagaga	caaagacgca	acagtggcga	ccttgacctg	900
tgggaaggcg	aatacactta	cgttggtatt	ctgaccaacg	attacaagtc	atcgacaagg	960
gacattgttg	aattctacaa	tctgcgtggc	ggcaaggaa	gtatctttga	cgacatgaac	1020
aacggattcg	gttgagcag	gctccccaag	tcattcatgg	cggagaatac	tgtctttctt	1080
ctgcttactg	cattgataca	caatttctac	aagaccatca	tgagcaggct	tgacaccaag	1140
gcttttgggc	tcaagaaaac	gagtcgcata	aaggcttttg	tcttcagatt	catctccgta	1200
cctgccaaagt	ggatcatgac	tgcaaggcaa	tacgtgctga	atatctacac	agagaaccga	1260
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<210> 4344

<211> 624

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (557), (601), (602), (603), (607), (608), (620), (621)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4344

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tcaatcatgg	agaaatttga	ctccatgctt	tcacccgtta	tcgactcaac	actgggctcag	120
agatgcagca	gtatcttcgg	atatcagttc	agcgagatag	tccgttcgct	gatgagcggt	180
tatttctgtg	gcggctcatg	cgtggaagat	gtaacgtcac	aactgatgcg	ccatctctcg	240
tatcatccta	cccttcgtac	atgcagctct	gataccatcc	tcagagccat	caaggaactg	300
acacaggaaa	acatctccta	tacttccgac	caaggcaaga	cctatgattt	caatactgca	360
gacaaaactca	acacattgct	tataaacgct	ttggtttcta	caggcgagtt	gaaggaaatt	420
gaggaatac	atgttgactt	tgaccatcag	ttccttgaaa	cggagaagta	tgatgcaaaa	480
ccgacctaca	aaaagttcct	cggctacagg	cctggcggtat	atgttatcgg	tgacaagata	540
ggtcttcaca	acggggntgg	aagtatcagc	atcgtagcta	ttcaaggggc	catcgttccc	600
nnnctnncc	gggccccatn	nccc				624

<210> 4345
 <211> 276
 <212> DNA
 <213> B.fragilis

<400> 4345
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 gatcaacact gcaaagatga agattttacaa attatcggca aaggaaaaaa cggtcgggaa 120
 agcagttttc tcagaaaaac ttataaacacg cttattatct gtatcataat tctaagctct 180
 tcgtttcaaaa caggtgcata cacatgtacc caatatcagt taagtttttag ttcacccgac 240
 aaatgcatag ttccaataca gaaagtctca caatag 276

<210> 4346
 <211> 954
 <212> DNA
 <213> B.fragilis

<400> 4346
 gttatgtact atttaataat cctgggttctg ctatTTTTTgg cagaactttt ttatttccgt 60
 attgctgata aatgcaatat catcgataaa ccgaacgagc ggagttcgca caccgggac 120
 actttgagag ggggaggaat tattttcttc tttggcgcat tagcttactt tctgacgaat 180
 cagtttgagt atccttggtt tatgctggct ttgacattga ttacttttat cagttttgta 240
 gacgacattc gttctacttc tcaggggtta cgtttggtgt ttcatTTTtac ggcgatggct 300
 ttgatgttct atcaatgggg gttattcagc ctgccttggg ggaccattgt ggttgctttg 360
 attgTTTgca cagggattat caatgcctat aattttatgg atggtattaa tggcattaca 420
 ggtggatact cgttggttgg gctggcgcca ttagcattta taaatggggg atatgttcca 480
 tttgtagagc cggctttgat ttataccatg ctttTgtctg tgttggtctt taacttcttc 540
 aatttccgga aacaggcaaa gtgttttgcg ggggatgtag gttcggttag cattgctttc 600
 gtgatcctct ttctgatcgg tatgctgata atccgtacgg aaaatttcag ctggattgtc 660
 ttgttggcag tctatggggg ggatagtgtg ctgacaataa ttcatcggtt gatgttgcac 720
 gagaatattg gtttgccaca tcggaaacat ttgtaccaga ttatggcaaa tgagctgaaa 780
 attcctcaca tgggtggtttc gttggtgtat atgttgggtc aggcagtagt tatagccggg 840
 tatcttctat tcccggggaa tgaatatggg tatttTgtcg gtaccattat tgcgctgagt 900
 ttggtctata ttctatttat gaagcgtttc ttttTgcttg atcaagcgaa gtga 954

<210> 4347
 <211> 762
 <212> DNA
 <213> B.fragilis

<400> 4347
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 gatattataa cgtgttattc atctattatt ggtattatac cttctaattg gcaatgtgaa 120
 gtgattgttt cttctaattc agtttatcca ttaaagcagc aggaggaact taaaacttta 180
 tataaagata ttaaatggag gtttaacgaa aagaatgggg gatttgctta tgctatgaat 240
 caaggtttat caatagcaga tgggtgatatt cttgtaataa tgaatcctga tgttaggctg 300
 aaaacgggaa ttgaaaagat ggtaacttat ttgtactccc ataatgaaat aggagtatt 360
 gtccttaaaa taataaatat taatggtaaa atacaagata gctttcggga ttttattaca 420
 ccaatgaact tcataaaacg acatttgagc cgtatattca aatctactaa tcagattggt 480
 attattgagg tcattagtca agtggattgg gtaattggag cttttatgat gatgcccgct 540
 caagcttatg aggtagtaaa agggtagat gaattattt ttttatattg tgaagatatg 600
 gatttctgta agaggataca attggaaggt ttttctgtgg tttattacc tgaaagtga 660
 atagaatatg aaggaacacg ctctgcaaga cggtcgttga aatatgcttg catatttttt 720
 aagtcattgt tacgatattg gactaaattt ggattcaatt ag 762

<210> 4348
 <211> 276
 <212> DNA

<213> B.fragilis

<400> 4348

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ctggaacggg	atttaacgaa	ccgttctgat	gtatatatgc	ccttggagag	tatcatgttc	120
gctggctaca	acgcttacgt	gtttataggt	gatgagttaa	agtctgctac	gtttaaggat	180
acggagcacc	aggtttgag	gtccatacga	aaagttgaaa	accgcaccgg	agaacgtttc	240
aaactatctg	aaagaggcgg	tcaattacct	cgataa			276

<210> 4349

<211> 219

<212> DNA

<213> B.fragilis

<400> 4349

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ggatatggat	gtaatttttc	tggatctaata	agacatagtc	ggggtgagta	taaaatagta	120
ggtcttgatg	tagagcaaata	ttgggagtat	ggtaaagaac	gaggcgaaga	ttttttctct	180
cctattacta	gtgaggtaca	atatatagag	gaatcttaa			219

<210> 4350

<211> 252

<212> DNA

<213> B.fragilis

<400> 4350

gttcctgagc	aacaaaaagt	tgcccaggat	tttgccatgt	cagaatttttc	acttatctta	60
gtgttgcaaa	aagaaaaacaa	gcaaaaactct	aatatgacat	ggcaaaaata	caaattaaat	120
ctgagaaaact	cacacctttt	ggaggaattt	tttcaatcat	ggagaaattt	gactccatgc	180
tttcacccgt	tatcgactca	acactgggtc	agagatgcag	cagtatcttc	ggatatcagt	240
tcagcgagat	ag					252

<210> 4351

<211> 252

<212> DNA

<213> B.fragilis

<400> 4351

gttcctgagc	aacaaaaagt	tgcccaggat	tttgccatgt	cagaatttttc	acttatctta	60
gtgttgcaaa	aagaaaaacaa	gcaaaaactct	aatatgacat	ggcaaaaata	caaattaaat	120
ctgagaaaact	cacacctttt	ggaggaattt	tttcaatcat	ggagaaattt	gactccatgc	180
tttcacccgt	tatcgactca	acactgggtc	agagatgcag	cagtatcttc	ggatatcagt	240
tcagcgagat	ag					252

<210> 4352

<211> 390

<212> DNA

<213> B.fragilis

<400> 4352

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aacatttttta	taccatcttc	gtatataaga	tctctaccag	aagatgtttc	taaggcactg	120
ccaagctcaa	aaagagtcac	tgtgctttca	ataaaagggc	tgtaaaaata	ttccttaaaa	180
aataagtcta	tactatctaa	gttttagtaat	agcactatga	aacaaaaggc	agtcgttaaa	240
ataatcttaa	aattcagttt	caaacagaga	tataatgcta	aaatggcaaa	taacgcaaca	300
aaagggcttc	tagaatttgc	taacccatt	gataccaatc	ccaaaatgat	aggaatggaa	360
aaaagccatt	tccattttat	tcttttatag				390

<210> 4353

<211> 1053
 <212> DNA
 <213> B.fragilis

<400> 4353
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 ctaattacgt cagtgggttct tataattttt atctattgtt tctgtcttct ttttttgagc 180
 tcgcatagga ttttacctat taaaataaga aatatggata ttctattgat tatctttttt 240
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 tttgtaaatc gatttacctg tattgtatac tatatgttta tatgtatact accctatgta 360
 atttgccggc ggattccttg gaatattatt aatttttagaa aagtcttatg gactctgtgg 420
 tggctatttg tgctagggct tgtgcttgct ttaaaatcgg tgttatctat attagcctct 480
 ggagatagtt tctttaatgg tagggctgat gcgaatactt atttagatac tatcgatat 540
 gggcatacag ggcttagcct tgttcttate tgtttttcac ttatttcttt ctataaaaga 600
 aataaatgga aatggctttt ttccattcct atcatttttg gattgggtatc aatgggggta 660
 gcaaattcta gaagcccttt tgttgcggtta tttgccattt tagcattata tctctgtttg 720
 aaactgaatt ttaagattat ttttaacgact gccttttgtt tcatagtgtc attactaaac 780
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 atgactcttt ttgagcttgg cagtgcctta gaaacatctt ctggttagaga tcttatatac 900
 gaagatggta taaaaatgtt cttagagcat cctattattg gaaaagctat tatacttacg 960
 gatggtgaat ttagggggtc ttatgttcat aatatattct tggagggtgt tatgggatta 1020
 ggattagtgg gtggagggtt atttcttct taa 1053

<210> 4354
 <211> 192
 <212> DNA
 <213> B.fragilis

<400> 4354
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 aattcgggtt tccctaatac aaattttgtt agtacacgta ttattgaagt agatagtaag 120
 aataatgtta gttttgagat gctctataaa tctcagaaaa tggatatgac atttagaatg 180
 caaaagatgt aa 192

<210> 4355
 <211> 210
 <212> DNA
 <213> B.fragilis

<400> 4355
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 accgcaccgg agaacgtttc aaactatctg aaagaggcgg tcaattacct cgataaattt 120
 gggaatgaaa tatttgctta tctaaaggat ggtaattatc cgattgataa gaactctgct 180
 gaacgaagta ttcgcaaact tatcacgtag 210

<210> 4356
 <211> 1413
 <212> DNA
 <213> B.fragilis

<400> 4356
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 attaattttt ttgtttttat gttgttggtc aggaaattaa ctctgtcgg ctatggtgag 120
 tttaatgtaa tactagctat agtggctata ttttcagtag tagcgacgaa tttgggagct 180
 aaccatgtaa taacaagaga ggttacttta cccccgata acacgaaggg aatttgttat 240
 aatgtaatac ctttaagggt aattgcatta gcgattgctt ttcttggtgt ctttgtttat 300
 atagtttgtg ggaaagatgt gtcatttagt tcgagctttt atatttttat tttgatattt 360
 gccacatctg tttgggattt tgctgagtcc gttgcttttg gtcgtttagt aactaaatat 420

actacttttt	tcaatctttc	attttcatgt	tcttggttgc	tatttgttct	ttttctgcca	480
gaaagtatt	ttagtataga	agttgtattg	gttatttatt	ctctgttgtt	tgtatgtaaa	540
tcgattggtt	atttgggacg	ttcttgtgag	aaatttgtaa	aaactacttt	gccagttata	600
tcattgacaa	aacgatcttt	atttatgatg	agtcttcctt	atttatggat	gagagtgttt	660
ggaatatttg	gtgagcaaat	tccaattcta	atcttgaata	ataaatgtgg	aactgatcaa	720
gtaggctact	tttcggttgg	cttccgattg	attattccaa	ttaccatcgc	tataaatata	780
ggattgaggg	ctgttttccc	ctttatgaca	agagcttata	cagaagatcc	taaattattt	840
tctgagaaat	taataaaggt	ttttactttc	gtaatgattt	gggggactct	agtagcaggt	900
attttggttt	tatttagtga	atattggatt	cccttctttc	taggaaaatc	atatttaa	960
tcaattgatg	catttaatta	tttggcatgg	tttggagtgt	gaatgtgttt	tgatttgttg	1020
ttatctacgc	tcttgtcatc	tacatataaa	caaaaaatat	tagcagctat	tacaactatt	1080
gattttttta	ttgtcatagc	ttttttgtat	tggggagctc	aatatggagc	aatagggtta	1140
gcttttagcta	agttgttgag	tatgctattt	atattgggtt	atcatattat	agttgtttgt	1200
aaagtattta	atatgagtat	ccggaatcgt	aattttatta	tttcttttgt	ggttttattg	1260
tttgctatgt	ctgttacctt	atttatttca	ttattcattc	ttaaattact	actatttata	1320
ttacctttct	tggtgggtgg	atttattcca	aataatccta	ttaggcaatg	tatagtagga	1380
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<210> 4357

<211> 516

<212> DNA

<213> B.fragilis

<400> 4357

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aaagttggaa	aaatggtaac	ttcacaacag	ttggccgaag	taatagctga	aaaatcatcg	180
ttgacaccgg	gtgatgttca	taatgtgatt	cgtaacttga	tgactgccat	gcgtaaagaa	240
ttgttgaaata	gccgttcggt	acgtttggag	ggattaggca	ctttcacgat	gaaagcttgt	300
acacaagggc	atggagtgga	tcaagaggaa	gaggtgagtc	cgaatcaggt	ggcggctctt	360
cgttgtctgt	ttactccgga	atatactcgt	cccgcagcta	tcggcactac	ccgtgctttg	420
cttcagggag	tggaattcca	gaaagtcagt	gcgatagggg	gagcaattaa	tggcggatcg	480
ggtagtggag	atattgtgga	tgatccgaca	gcctga			516

<210> 4358

<211> 189

<212> DNA

<213> B.fragilis

<400> 4358

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cttgctacta	taagccattt	tgaacaaggt	gtcaatcaga	acatgaccct	gaataatttc	120
atatcattgt	tgcgataaat	cggcatggag	caacgtataa	atgattgcct	gagttgccca	180
tgccactaa						189

<210> 4359

<211> 243

<212> DNA

<213> B.fragilis

<400> 4359

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actatacatt	gcctaataag	attatttggg	ataaatccca	ccaccaagaa	aggtaataata	180
aatagtagta	atttaagaat	gaataatgaa	ataaataagg	taacagacat	agcaaacaaa	240
taa						243

<210> 4360

<211> 183

<212> DNA
<213> B.fragilis

<400> 4360
ataaaaatta taagaaccac tgacgtaatt aggcttatag gcagaaaagc tccaaagaaa 60
gttcttaaat caaaagcaaa aacagctaata atagtacaaa atacgggata ctttaacctg 120
tctgagattt taatttttaa atctatcata tttcaatata tcatgatata tattatcaat 180
tga 183

<210> 4361
<211> 918
<212> DNA
<213> B.fragilis

<400> 4361
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gttgaacact atcaagaata taaaagttag ttatatcttc acatcattgt ggataacggg 120
tcagaagatg aatatatggc gcaactgaag tcaactttta cagattctat aattatcgaa 180
agaggtaaaa atggcggttg tactcatgct tataatgatg gaattagata tgctcttaat 240
gataagcatg ttgatgcaat tatgttgata ggaaatgata taaaattatc ggttcatggg 300
gtgaaagggt tgtatgattt cttaatgtct aatgctgaat atgggatggg tgagcctata 360
ctattagcga aagactctga tattgtggag gactttggta atgagatata gaggtatttg 420
cagatgaaac cttttgcagt agggcaaaat atcggtaatt taacaggaga tgaagtcaga 480
actgtattta ctgtaactgg tggcatgaac ttggctaaaa gagagtttta tgagattgtg 540
ggattgcaag atgatctatt atttatgtat tcagatgaag tggatatggg aattagagct 600
aaacattgtg gattcactat ggctgtgact aaaaatattc aagcctggca tcaacatatt 660
aatcctggag gaactgtacg tagacagatg tatacatctt atcttatagg tcgaaataag 720
gtatatcttg cgaataagca ctttggccgt ctgcccaggg tgggaattgtt cttatatcat 780
tttttcttat ttataggtgg atatttgaaa aatataagga atagggaagc acaagcgcac 840
ttgattcaat tcataaaagg ttcgtggaat ggtcttatag gaaaaatgtc attagttgga 900
ataattaaag ggtattga 918

<210> 4362
<211> 264
<212> DNA
<213> B.fragilis

<400> 4362
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agtggagata tgtccgaaga tcgtaaaagc cggtatatca gttatctcgt tgactacgtc 120
aatgagaccg agttggacaa gaaagcgtg gaacttgtct tggaggattt tcttagtgcc 180
tggaacgata tgaaagctga actggctgag ttacaaagga gacaagacga aatgggtttc 240
caaactacag gagtcagcct ctga 264

<210> 4363
<211> 234
<212> DNA
<213> B.fragilis

<400> 4363
cgaaacagta tgctctactt cggcagtgac gagggagtag agatggttgc cacgtaccat 60
agcctaata gtactgtgaa gatgcagggg cgggttcgtt gggagtttct cagtaagttt 120
tttactaata tttttaacgg ttgcagagat tatttgaatc tctcaccaaa aatatcggac 180
tggactatgg caatagtaaa taaatcactg aatcttttaa caaaacaatt ttag 234

<210> 4364
<211> 984
<212> DNA
<213> B.fragilis

<400> 4364

ttaaagggta	ttgaatatat	ggatattgta	aaggattata	aaaaagttat	agaaattact	60
ttaggagaag	tagtggcatc	tcctgatttt	tttgtttcag	ttggggctat	tgattatgga	120
tatattattg	ataatggttg	tatccttcct	ttctatataa	aaaagaaatt	cctttttcgt	180
tatatgattt	tttcaacggg	tatattaaat	tgttcgtcct	ctgaacaaga	acaagtgttt	240
ttagaccggc	ttattccatt	tgtgaaagag	tcatttataa	ttgattttat	attatcgcaa	300
catgtaaatg	ctttgttttc	tattgttcct	cctagatctc	agtattgttt	gtttggctct	360
tatatattag	acttgtcatt	gaccgaagat	gatatatggg	caaaaatgca	ctctaagcat	420
aggaatgtaa	ttagaaaagc	agagaaaagat	ggggtgatta	ttacttgctg	ggatgacaat	480
aaagaagaat	gcattaagtt	ggtgcaaaac	actttactga	gacagggaat	agcacctatc	540
aatgataatg	ttttttctaa	tttaggtaat	gttaagtatg	tggactattg	gctggctact	600
cttaataatg	gaatagaggg	tggggcaata	atatattggc	atccgaattg	tgggtgcctat	660
tatatgtatg	gtggatctgg	agaaaaacct	catactggta	gtatgaattt	actacagtgg	720
aatgtcatca	aaaagatgaa	ggaaaataac	gtgaagtttt	atgattttat	gggggcgcgc	780
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ggagaactta	agaaaggata	tctgtggaaa	tattccttga	atgattttta	gtattggctg	900
tatagattgc	tggtatttat	atatagtaaa	ggtcattttc	atggagatat	tattgatcaa	960
gaacgtaaaa	gaggtaatat	atga				984

<210> 4365

<211> 1017

<212> DNA

<213> B.fragilis

<400> 4365

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ggagtactga	aaacatttta	ttggaaagat	attaatccag	agtcattctc	attacaaaac	180
cttcctaaat	ttgatgcaat	catccatctt	gccggaaagg	ctcatgatac	gaaaaaccaa	240
tcagctgctc	agtcttattt	tgatattaat	accagtctga	ctcaaaagat	atttgatttc	300
tttttgagg	cttctgcgaa	gaaattcata	ttttttagtt	cagtaaaagc	tgcggcggat	360
agtgtagtgg	gagatatgct	tactgaggat	gttattccgg	ctcctgttgg	tccttatggg	420
gaaagtaaaa	taagagctga	agagtatata	aaagaacatt	ttgcatttcc	tgctgtctct	480
ccctgtgagt	gttctccttt	tcgggagatg	acttcggtta	cagagaaaca	ggtttatata	540
ttaaggcctt	gtatgattca	tgggtccggg	aataaaggga	acctgaatct	attgtataat	600
gtggtgaaga	aaggaattcc	ctggccattg	ggtgacttcg	aaaatcgctg	ttcgtttact	660
tcaattgata	acctatgcta	tgtgattgag	ggattattga	ctaaagaggt	acctacgggc	720
atttatcaca	tgggggatga	tgaagcttta	tcaacaaatg	agttgattgc	catcatgtgt	780
gaggcaatgg	gaaaacagcc	ccatatctgg	aagatgaata	agggctttat	ggaaggatgt	840
gccggactgg	gaactttact	ccatttgcca	ctgaatacgg	aaaggcttcg	taaactgaca	900
gagaattatg	tggtaaagta	tgctaagatc	aaagctgctc	tcgggattga	taaaatgcct	960
gtgacagcta	aagagggggt	gattaaaacc	attcgttcat	ttgaagaaac	taaataa	1017

<210> 4366

<211> 210

<212> DNA

<213> B.fragilis

<400> 4366

ggacatactg	tcgacggagt	atgcagcagc	agtacacatc	gtactgatga	tatagagggt	60
aagatagata	gacacgcgta	cagaccgaca	gatatgaggg	gagtgcctgat	taaatattat	120
gacattactg	ttggatgtag	cttggtgatt	gaggggccag	ctgaggtggc	actacattgg	180
atgacaggac	ggcgaacgag	agagttttag				210

<210> 4367

<211> 1038

<212> DNA

<213> B.fragilis

<400> 4367

tatatgactg	ttaagaagtg	tgtgttaacg	ttggattatg	aattgttttt	cgataaaaagc	60
ggaacgccac	aagtctccat	gcttaatcca	acagatctat	tattaaatgt	tttagaagaa	120
acgtcatcta	aagctacttt	ttttattgat	actattttatt	tgaataaaact	tagaaatagt	180
aatgatataa	aaaataaaaat	attattttgat	aatatagtaa	accaactaaa	aagaattggt	240
aagcaaggta	gtcggataga	gttgcactta	catcctcatt	ggattgatgc	ttatcagaat	300
ggagatcaat	gggtattttc	ttcttacgca	cattataaat	tgggcagttt	atctgatgaa	360
actgtagagt	gcctatttaa	agaagggtatt	ttattattga	atgaaattgc	acaaagtgtt	420
gatcgtgatt	ataggataat	ggctttccga	gctggcggtt	ggtgtgttga	gccattttact	480
aagttgagga	atctattttg	agcaaaacaat	atacttatag	attcatcagt	ggttttctgga	540
atgaaatttt	ctggtgaggt	tcataatatt	gattatagtt	ccattttacc	taacactcac	600
tactattttt	cagattcggg	ttatgaacag	aatagtacag	gtgtgttttt	agagattcct	660
attaatggat	atcaactgtc	tgccttaaat	aaaatttgtg	ggaaaatgaa	gagtatattg	720
gcagggtgaaa	agggcgaata	atatgggtgat	ggtgttggtg	tgcaaagtgt	tgagcatcaa	780
acaatattga	ataaaaattct	taaattgttt	gttgacagg	ggcagtatgt	tcaatattcg	840
ttagatgggt	atattgatct	tgataatctc	aataatgcta	ttaataatag	taaacttagt	900
tttatttcat	tggttgcgca	tccaaaaaca	ttgacaaagt	cttctctaga	tgcaataaaa	960
tatcttacta	atgtaggatg	ctcatttgtc	tcaattgata	atatatatca	tgatatattg	1020
aaatatgata	gatttttaa					1038

<210> 4368

<211> 717

<212> DNA

<213> B.fragilis

<400> 4368

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gataataccc	tctccattct	taagtcctat	catgatagga	ggatcattat	atttactaat	180
caaaagttca	attctcccat	atataatttt	gaaaatgctt	taaagcatgc	aaaagggtgat	240
attatctttc	tttcagacca	agatgatatt	tgggagttta	ataagggtcca	agtaatgata	300
tcctttcttc	agaaaaaatc	attggttgtg	tctgattgtt	atattattaa	tcaagataaa	360
aatgtaattt	gtgattcgtt	atttaatgga	aaagttccaa	acgccggagt	attcattaat	420
atacttcgta	atcattatat	tggttgttgt	atggcggttc	ggcgagagat	tttaaagtca	480
gcattacctt	ttccttcttc	tttagccatg	catgatattt	ggtaggatt	atgtgcgtct	540
gccttttatt	ctgctgtatt	tataccta	cggctcataa	aatatagacg	acataaact	600
aatgcttctc	cgacactaga	aaatagta	ttgccattat	tgtatagggt	acagtatcga	660
tggaccttga	ttatagcgct	tgtaagaaga	gcgttgaaaa	taagtaagca	tctatag	717

<210> 4369

<211> 804

<212> DNA

<213> B.fragilis

<400> 4369

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tatgcacggc	acctgaaact	accgaacttg	gcagaacatg	tgggtgtgat	acttcatgaa	120
gcacaggaga	agcaactgac	ctattcggag	ttcctggcga	attgtcttgc	caggggaaatc	180
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gaactgcgtg	agctgggtatg	ggtgaaccag	gcatacaatc	ttctcctggt	aggcccttcc	360
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gaagcatatc	tgatgacact	ggaggagctg	ctcacatgcc	tgaaaacgaa	agaggctctc	480
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gccacactgt	ttcctttgaa	aagagaagaa	gccgtgttgc	tgttcaaact	ggtcaatgac	600
ttccaggaaa	ggacatcact	catcatcacg	gcaaaacagg	cactcacccg	ttggctggaa	660
acattggagg	atgaagcggg	cacagccgcc	ttgcttgaca	ggctgctcta	ctgctgcgag	720
attatcaggc	tccggaggaa	aagctatcgc	atgcaaaaaca	ggaaaacaat	ttttagcaac	780

caaaacacgg atataggcac gtaa

804

<210> 4370

<211> 1002

<212> DNA

<213> B.fragilis

<400> 4370

agaccagaca	ccggaatgga	aacaaagagc	caaaatttaa	aagacaaaact	gtatatgtgg	60
tacaaggtaa	gagaacttca	gtcgaaagga	ctgagcaaga	cacagatcgg	aaaatatctg	120
ggcgtggacc	ggagcactgt	gcgagatat	ctgcggaaca	gccgggaaga	gtttttcaga	180
aagcagaact	cccaccggga	gtatgaactc	aagttgggaa	agtacgagga	gtatgtacgg	240
ggtacactgg	aagaataccc	gtacatatcg	gctgcccgtg	tgcactgactg	gctcaggggag	300
tgttaccctcg	attttcccg	ggtatgtgac	aagaccgtat	tcaattttgt	agacaggata	360
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gtgaagaatg	gcggaagcac	gaagggtttac	ttcttcgcca	tcgtactgac	gcgttcccg	540
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gaactggcct	ttcagtattt	cgggggcagg	cctgaaaaga	ttatctatga	ccaggacagg	660
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aaagtggaga	atgtggtgaa	gtatgtgaaa	gagaattttc	tggtggcccg	tgttttacag	840
gatatccccg	ggctgaatga	ggaagcccg	aatggcctg	aaaggacggg	taatggaaaa	900
gtgcacggga	ccaccgcct	ggtcccctct	gaggagtctg	ctgtggaaaa	aggatacctg	960
aaccttatta	tggctaccc	gagccaccac	aggagcagat	ga		1002

<210> 4371

<211> 1779

<212> DNA

<213> B.fragilis

<400> 4371

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caccggggcc	ccaccaccct	tgtaatctct	tctgtgtccg	cttccaacag	tggtgcggta	180
gcggttccg	atgatccggc	ttcatccatc	agagaccttt	gtattctcca	atttaagtga	240
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cagattcaga	tctggaaagc	gggcaagcaa	tatgcgtaca	tgcttctga	aaataatttt	720
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gaaacgaagg	tttatgacat	tacacatatt	ataaacaata	cttattgttg	tggaaagatc	840
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ctggcagtta	ttgtaggggg	taaatataac	ggttcgcaaa	cagaaacatt	ttaccgcgtg	960
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ataccgaaag	atataagctt	tactgccgag	cttactccat	ggacattccc	tcctgcgggt	1140
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gataccaatc	cgtggaaaac	gggtaaaacc	cttacggctt	ttgacatttg	ccgcaactat	1500
gaaggagacg	gattttggcg	ctggaggctt	ccgcggtctt	ccgagctggc	tttgctctat	1560
ttaaacagag	ggagcctgga	ggcaatgaga	gggtttgctc	cactaagcgg	aacttactgg	1620

agcgggttcgg	aatatctggt	aagtgattcg	aaggtagata	aaagacactc	cgaacaggct	1680
tggggaatca	actttgatgc	tacgaatccg	ggcaatgcgg	caccctatga	caaaacaacg	1740
aaaaaattha	aatccggtg	tgtacgacaa	acgcagtaa			1779

<210> 4372

<211> 195

<212> DNA

<213> B.fragilis

<400> 4372

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ctggagtg	atatactaaa	ttacctaaaa	aagtggcgca	caaatttgcg	cgccacaccc	120
tatatcgaag	ttacttcggt	tggtaatgct	ccttgcggtg	gtgctgttat	tgtcttcctg	180
ccgtcaggac	gatga					195

<210> 4373

<211> 645

<212> DNA

<213> B.fragilis

<400> 4373

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tacagcctgc	catgcggcac	ttaccggagc	gggcagacga	gggtctggtt	gcaggaaact	180
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gcacagaagc	tggccgaacg	tatccttggt	tatgtatccg	gaaaccggga	ggtcgccttg	360
tggatggaga	acctcaagag	aaagaaagaa	cgctattaca	aggataatct	ggaagtgggt	420
ctgcacatga	tgcggggcta	tgacaaggat	atcttgatag	aggcagtgca	catatgtctt	480
gataagggca	tctacaatgg	cgattccgtt	aaaagcctgt	gtgaacacgt	gcacaggaga	540
cgggaataaag	aaactgaaac	agacaggacg	gacagttgcc	cgccgcgaca	aaccgggctg	600
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<210> 4374

<211> 372

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (365), (366), (367), (368)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4374

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gcaggagcct	gtgataatag	tgaccggatc	gagacagaga	ctcaggcaaa	cggtgtgctc	180
ctgaatttca	atgcgtcgac	gattgatgca	accactactg	aaacaagaag	ttttgttccc	240
attgaagggt	ttgccaaaaa	cgaatatatt	tttggcatgt	ctgtcaccaa	agataatgca	300
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caatnnntt	aa					372

<210> 4375

<211> 219

<212> DNA

<213> B.fragilis

<400> 4375

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 <212> DNA
 <213> B.fragilis

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<210> 4378

<211> 573

<212> DNA

<213> B.fragilis

<400> 4378

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<210> 4379

<211> 423

<212> DNA

<213> B.fragilis

<400> 4379

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<210> 4380

<211> 1365

<212> DNA

<213> B.fragilis

<400> 4380

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<210> 4381

<211> 423

<212> DNA

<213> B.fragilis

<400> 4381

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<210> 4382

<211> 183

<212> DNA

<213> B.fragilis

<400> 4382

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ttagctagat	atatatttaa	tctactgata	gcctatgata	tttatctgta	taatctgtgg	180
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<210> 4383

<211> 390

<212> DNA

<213> B.fragilis

<400> 4383

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<210> 4384

<211> 3132

<212> DNA

<213> B.fragilis

<400> 4384

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<211> 603

<212> DNA

<213> B.fragilis

<400> 4385

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<210> 4386

<211> 225

<212> DNA

<213> B.fragilis

<400> 4386

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gtacccaaat	atccggaaat	cccaatcgaa	ggattcgatt	ttacggaagt	atattgtctg	180
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<210> 4387

<211> 222

<212> DNA

<213> B.fragilis

<400> 4387

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<210> 4388

<211> 1569

<212> DNA

<213> B.fragilis

<400> 4388

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<210> 4389

<211> 1380

<212> DNA

<213> B.fragilis

<400> 4389

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<210> 4390

<211> 207

<212> DNA

<213> B.fragilis

<400> 4390

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<210> 4391
 <211> 870
 <212> DNA
 <213> B.fragilis

<400> 4391						
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<210> 4392
 <211> 252
 <212> DNA
 <213> B.fragilis

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<210> 4393
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 <212> DNA
 <213> B.fragilis

<400> 4393						
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1734

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<210> 4394

<211> 1692

<212> DNA

<213> B.fragilis

<400> 4394

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<210> 4395

<211> 1668

<212> DNA

<213> B.fragilis

<400> 4395

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<210> 4396

<211> 459

<212> DNA

<213> B.fragilis

<400> 4396

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<210> 4397

<211> 1326

<212> DNA

<213> B.fragilis

<400> 4397

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<211> 1542

<212> DNA

<213> B. fragilis

<400> 4411

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<211> 435

<212> DNA

<213> B. fragilis

<400> 4412

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<210> 4413

<211> 1302

<212> DNA

<213> B. fragilis

<400> 4413

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<210> 4414
 <211> 1509
 <212> DNA
 <213> B.fragilis

<400> 4414						
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 <211> 1131
 <212> DNA
 <213> B.fragilis

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<210> 4416

<211> 1209

<212> DNA

<213> B.fragilis

<400> 4416

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<210> 4417

<211> 2088

<212> DNA

<213> B.fragilis

<400> 4417

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<211> 1317

<212> DNA

<213> B.fragilis

<400> 4418

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<210> 4419

<211> 1248

<212> DNA

<213> B.fragilis

<400> 4419

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<210> 4420

<211> 1512

<212> DNA

<213> B.fragilis

<400> 4420

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<210> 4421

<211> 1443

<212> DNA

<213> B.fragilis

<400> 4421

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gatacctctg	aatttcttca	tatgaattgg	ggatgggggtg	aaaatggggg	aaatggatgg	1380
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<210> 4422

<211> 846

<212> DNA

<213> B.fragilis

<400> 4422

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caattattgt	cgaagattcc	tcccgaaaaa	gaggtttccg	accagaacgt	tatcgaaacta	300
caacaacttt	atcccacccg	acaggaggag	atacatcgcc	tgatcagcac	gatccgggga	360
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<210> 4423

<211> 1278

<212> DNA

<213> B.fragilis

<400> 4423

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caagaacatt	tctatcaatc	actgctcgag	gaggtgccca	gcggcggtgct	tgcttgggac	420

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<210> 4424

<211> 1305

<212> DNA

<213> B.fragilis

<400> 4424

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aataaagtaa	aaaacaagtc	ccaccaatac	cacggctccg	gcgacggcat	aataatgctt	1260
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<210> 4425

<211> 1371

<212> DNA

<213> B.fragilis

<400> 4425

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<210> 4426

<211> 1035

<212> DNA

<213> B.fragilis

<400> 4426

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<210> 4427

<211> 1188

<212> DNA

<213> B.fragilis

<400> 4427

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aaagtgtctg	tttccgtatc	gcccaccaa	ctggaagaca	aaccttgga	ggcgttcaaa	1140
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<210> 4428

<211> 1173

<212> DNA

<213> B.fragilis

<400> 4428

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<210> 4429

<211> 1038

<212> DNA

<213> B.fragilis

<400> 4429

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1038

<210> 4430
 <211> 1935
 <212> DNA
 <213> B.fragilis

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<210> 4431
 <211> 1977
 <212> DNA
 <213> B.fragilis

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 gggatgcag taacagggtg tattgatgaa aaagatcatt ataaaccgga cgataaaaaca 180
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 aagggacgcc ctaattatct ggatagtga ggggtaatag aattgacttc ttcattttat 660

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gatgtcgagt	cattcagtac	aacggagaag	gaagctattg	ataagtcgta	tcctcgtttt	1920
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<210> 4432

<211> 597

<212> DNA

<213> B.fragilis

<400> 4432

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tctctaaact	ataacatcgg	actgattaac	gtaaacaaat	cttgggcaag	cgactctaata	540
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<210> 4433

<211> 744

<212> DNA

<213> B.fragilis

<400> 4433

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 <211> 2373
 <212> DNA
 <213> B.fragilis

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 <211> 462
 <212> DNA
 <213> B.fragilis

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<210> 4436

<211> 909

<212> DNA

<213> B.fragilis

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<210> 4437

<211> 576

<212> DNA

<213> B.fragilis

<400> 4437

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<210> 4438

<211> 372

<212> DNA

<213> B.fragilis

<400> 4438

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<210> 4439

<211> 900
 <212> DNA
 <213> B.fragilis

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 agaaaattaa aaagtgtaga ttcatttagca ttgcagaaac agatccgtgc agaacaatct 180
 gaatatcctg cgttgagtct atataccta atgcacgaac agtacgtaca tgcttacgga 240
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 ggcgacagtt tgtcccgaat tgctaaattg cgtggcggtt ccgtcagcac actttgtaag 840
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<210> 4440
 <211> 555
 <212> DNA
 <213> B.fragilis

<400> 4440
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 gagattgtag tcggagcgca tgacgtatct gtgctttgcg ataagaattt tgaaaattgt 180
 gacttctttg atgctgagct gctgttttta cccggaggta tgccgggagc tgccactttg 240
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<210> 4441
 <211> 501
 <212> DNA
 <213> B.fragilis

<400> 4441
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 gcgggaccaa ccaacggacg tctggcagcg cgggggacca ttcgcggaga ttacagtatg 360
 agttttcaag aaaacattgt tcatacctct gattcgctg aaaccgcagc tgtcgaatta 420
 aacagattct ttaaaccgga agaaatattc gattacaagc aggtactttt tgattacctg 480
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<210> 4442
 <211> 933
 <212> DNA
 <213> B.fragilis

<400> 4442

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gactatagca	ttaaggtggt	gaaacgcttt	aaccacatct	ttttcgatac	cttgcgtagc	900
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<210> 4443

<211> 774

<212> DNA

<213> B.fragilis

<400> 4443

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aatcgcttca	gggcagactg	cggttcctgc	tcgaaggaaa	tcgtcagtga	gatagagaag	180
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<210> 4444

<211> 1335

<212> DNA

<213> B.fragilis

<400> 4444

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gagtataaaa	tacaagacta	ccttgatgct	ttcggtatgg	ggacatgggt	cccggctttt	180
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<210> 4445

<211> 255

<212> DNA

<213> B.fragilis

<400> 4445

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tgtctgatgt	gctgcattgg	actagtcagt	gatacgatcc	gtattcgtcc	tggtgggaat	180
acgatcgggtg	tgtcatgtga	aggcgtatct	atggacgcga	atggcatgag	agcgagggga	240
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<210> 4446

<211> 672

<212> DNA

<213> B.fragilis

<400> 4446

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ctggaagctt	ttaccgcttt	cgatgaaaaa	atgcagatta	ttcttgtatt	acctcgggag	180
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<210> 4447

<211> 804

<212> DNA

<213> B.fragilis

<400> 4447

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gaactgaatg	aagctttggc	taacgaaaag	cctaactgtg	atgtcattat	ctgtactccg	180
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aacacttcaa	tcctttatgg	tggtagctgc	aaaccttcta	atgctaaaga	actgtttgct	720
aatcctgatg	ttgacgggtg	tctgatcggg	gggtgctgcc	tgaaagttgc	tgacttcaaa	780

ggtatcattg acgcattcaa ttaa

804

<210> 4448
<211> 2124
<212> DNA
<213> B.fragilis

<400> 4448
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gaaacatttg gtgaaggacg tcagaggagg ctggtggcgc atttttcgga tggtagcgga 300
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<210> 4449
<211> 267
<212> DNA
<213> B.fragilis

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<210> 4450
<211> 882

<212> DNA
<213> B.fragilis

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<211> 636
<212> DNA
<213> B.fragilis

<400> 4451
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<210> 4452
<211> 450
<212> DNA
<213> B.fragilis

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<210> 4453
<211> 270
<212> DNA
<213> B.fragilis

<400> 4453

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cgcacgatga	agaacccgca	tggaagaagg	aacgggatgc	accaatgcag	aaggacatat	180
gaaggatggt	caatacttaa	cggaccatca	cggagcgtcg	tgcacatga	tcgatcgatg	240
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<210> 4454

<211> 738

<212> DNA

<213> B.fragilis

<400> 4454

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gtgggtgggt	tgattgtggg	tattattgct	atgtttgctt	acaactacct	ggtgatgttg	660
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<210> 4455

<211> 558

<212> DNA

<213> B.fragilis

<400> 4455

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tgtatggata	cccgcctgac	agaactgttg	cccgcgcgtt	tggggattca	caacggagac	180
gtaaagatta	taaagaatgc	cggtgccgtc	atttcccac	ctttcggcag	tgatcatccgt	240
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gattgcgggtg	cttgccacat	gaacagcgac	gaaatgatag	ctcacatgaa	aaagcgggga	360
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ggcggattcg	acgatccggt	gaagtccgtc	agggggcacgg	ttcgttccat	agagaaccat	480
ccgctttattc	cgaagatgt	ccgggtgcat	ggttttatca	tcgattcact	gaccggcgag	540
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<210> 4456

<211> 207

<212> DNA

<213> B.fragilis

<400> 4456

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cgttttcatt	ggaaaattct	ccgggatgga	gctcaaccga	taaggagcac	ttttcgatgc	120
aatcaggtga	acgtgacgtc	cggaaaagga	gatgccgtca	tagcttcggc	tacgcagcac	180
cgtaacttcg	gctacgcagc	accgttaa				207

<210> 4457

<211> 225

<212> DNA

<213> B.fragilis

<220>
 <221> unsure
 <222> (91)
 <223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4457
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 aataaatcaa taaaattcat acgccgcgtg cctgtttatgc tcgctattat caaatccggg 180
 tcgggtctatg gaggagattc cacaccagac aggtcgctcc ggtag 225

<210> 4458
 <211> 1095
 <212> DNA
 <213> B.fragilis

<400> 4458
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 aaaaacacat tcctgttaac attcgactg atactcctgg caggcagccc cctgaaagcg 120
 caggagaaaag aagaggctgc tacactgaat aaagtgggtca acacactgaa agagcgaatc 180
 actctggccg gatacgcgca gttgggatat acctatgacg atgcagcaaa aaaaatgaat 240
 acgttcgaca tcaaacgaat cattttcatg gctcacggaa agatcacgga ccgctggacc 300
 tgtgatttta tgtacgactt ttacaacggc ggcatgctgc tcgaagttaa caccgattac 360
 cggattctac ccgggctgaa agtgcgtatc ggcaattta aggttcctta taccatcgaa 420
 aatgaattgt cgccactac cgtagaactg atcaactgct attctcagtc agtctgctat 480
 ctggcagggg tgagcggcag tgatgtcgcc tgtggcatga catcgggacg cgacatcggg 540
 gccatgggtt atggaggcct gctgaatgat ctgctatgct acaaactagc cataatgaat 600
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 gtgaatcccc tgaaatggct gtcgggtgggt ggttcgttta tcaaaggac cggacacgcc 720
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 aatttcgacc ttgtggcttc gtatgactat ttcaatgcaa acaaagccgt cagtaggaaa 960
 cagaccaatt atatagccgg actgcaatat tggttctatc ccaagtgcag gctgcaagca 1020
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 caggtaagat tctga 1095

<210> 4459
 <211> 1425
 <212> DNA
 <213> B.fragilis

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 agtatctccg ttagcgcggg ctttcaagcg gaaagccacc agattaccaa catctaccgg 180
 gaggaattcc aggtgcttac gtaccatctc ggcattctcc atacggaaag cgggatgggc 240
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 gttccaatca atggcattaa tagaatcggg actctcaaaa ctattatgca cccctttctt 360
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 cgtctgcgcc agtttgtcaa gtcgtacgag ttgttcgggt gtgatgccgg ggatactcga 480
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 gaacgctccc ttatgattat cattaaaagg accacgcaac gcatcacgca tttcatcgga 720
 aaaggcggca ataccgggca ttttacaagt attgaccttc attgccagcg aatcaccggg 780
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ggtgttgtat	gtatgattgt	ataccacatc	gagcactacc	cgtataccgg	ctttgtgcag	1140
tgcctgtacc	atctgcttaa	actcgcggat	gcggacagcc	ggatcgtaag	gatcggtagc	1200
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tactcccagc	tccgatcagat	gatcaattcc	ggtcagcaat	ttggcagagt	tcacgtgacc	1380
atgttctgtc	aatgccaaaa	attttccctt	atgctgaatc	cctga		1425

<210> 4460

<211> 1386

<212> DNA

<213> B.fragilis

<400> 4460

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ggatggtagt	atctgccttt	cctgttgacg	gcagtagtgg	tagcactggt	caccttcttt	180
tgggcacaa	ggatggaaag	cagggcaaaa	gccggaaaaa	agaccaaacc	cgtctatata	240
gcaggaatca	tccgctgat	cggcggtatg	ctccttcttc	atggcacggg	catagatgat	300
atcatctttc	cacttgggat	gtcattttac	acatttcaag	ccatcagtta	tctgacagac	360
gtgtactggc	aagagcaacg	cagcgaaaaga	aactgggtgg	atttcctgat	ctatatgctt	420
ttcttcatga	agtttctctc	cggccctatc	gaacgggggtg	gagacctgtt	gccacaattg	480
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cattcgattc	atgacctctc	gggtgtacaa	ctgctaata	cttgccact	ctaccctatc	660
gaactgtatg	ccgatttttc	gggttatatg	gatattgcta	tccgaggggg	ctatatgttc	720
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ttttaa						1386

<210> 4461

<211> 207

<212> DNA

<213> B.fragilis

<400> 4461

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gaaaaccaat	ggatatgttc	ccgacggctc	tattctctac	ctcggacgct	ggaacggaat	180
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<210> 4462

<211> 1149

<212> DNA

<213> B.fragilis

<400> 4462

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actgaagtga	atcactataa	gacagaaaag	gcaaccccg	tcggagttgc	ctttttttaa	180
agccggaaat	ggggagagag	cctccttttc	agtatcctgt	tccttttctt	tctatcagcc	240
tgcacaggaa	agaaagagaa	gcattccgct	ttgccggaac	tgcaaaactct	gactttcggg	300
ctgatgcctt	ctttcgatgg	actgccttct	ctggttgctg	tccgtcaggg	tatttatgac	360
tcgctggata	tcaaaatcga	tttcattact	tatgcttcgg	caactgaccg	cgatgccgct	420
tttttatcgg	ggaaactgga	tggatgctc	accgactacc	cgggtgcaac	tctgttgca	480
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agtaaaaaaa	gcaatgttag	gaatccggac	gatttgaaag	ggaagaatat	ttctgtctcc	600
gccaatacct	ttgtagaata	tgccacagac	gaagtaatga	aacgggcctg	cctgcacccc	660
ggagaagtga	acaaacctga	aataaacaat	atccccctga	ggctgatgat	gttgaggagc	720
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ttcggactgc	aggaaaaggc	ggccatgcag	atagacttgc	cggactatcg	gcctgctacc	1020
cgtccgtctt	accacgacat	agaaaaaatc	attgcctggc	tgaagagtaa	aggggcaatc	1080
cccgactatt	atccggggaga	aaatttagtg	gataccacct	tcattcccgg	cacactcaaa	1140
ccacaataa						1149

<210> 4463

<211> 1368

<212> DNA

<213> B. fragilis

<400> 4463

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gataaatatg	gaatcagtg	agagagagtg	atagcgtggg	tacgtgaaag	ccaaatcacc	120
acttccgttg	tgggcagcgt	ggtgctgatt	gatgacggga	gcgtgtgcga	attggtagag	180
aaagaaaaac	ggttggcgca	cctgaaaacc	aattacgagc	aactttgcgc	gaagtttgag	240
cagcgcacgt	aggcggaaact	gcgtgcagac	gaagatgccg	gactcaagat	gcgtcttctg	300
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gaagatcgaa	aactgttcaa	cagtgccttc	acagccgccc	ctctgtatcg	gatagctcgg	420
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acggaaaata	gcttcaaaaag	cagactgggc	gaaaaggggc	cttggaggaa	aatcgagagc	960
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tcgctggaca	gatataagaa	agaaaccagc	gagatgatcg	aaaaatataa	ggcgaacgag	1320
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<210> 4464

<211> 1623

<212> DNA

<213> B. fragilis

<400> 4464

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ggagtagcgt	cttgtgtgaa	cgacctcaat	acggttccac	tggacaaaga	cgaattgggt	120
tccgacgttg	ttttcgggaa	cgagcccttg	gcttatgagc	agagtcttgc	taagatttat	180
gcaggtagtg	ccatcggtgg	taacagcggg	ggtgattccg	atcaggatgt	ggtaggcatc	240

gatggcggtg	gccaggcttc	ctttctccgt	gtattgtgga	atatgcagga	tttgccttcg	300
gacattgcac	actgtgcatg	gaatgacccc	ggtatccctg	agttcaacca	tatctcctgg	360
ggtgcatcca	gtccgtggat	caaggggtca	tactaccgcc	tggtctatca	aatcaatgta	420
gccaacgctt	atctgctgta	gactaccgaa	gataaactgg	atgcccgcg	ttgtgacgca	480
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taa						1623

<210> 4465

<211> 402

<212> DNA

<213> B.fragilis

<400> 4465

cgtttgcgaa	cgtttatctg	ttttggtgct	gcaaatataa	tgtattattc	tgaaataatt	60
gctatgtttg	cggaaataat	caacttaaag	ataaaaaata	tgctgatata	caataccact	120
tttcagggtg	acgacgaagt	tcatgataat	tttttgatct	ggatcaaaga	gagttatatt	180
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cgtagacga	gtacttctta	ttcgctccaa	tgggaggtgg	acgattcttg	tggtgctgac	300
cgctggcatc	aggatcaggg	tgcgcggtc	aaccaagagc	tggtgaagat	atttaaggat	360
aaagtagtcg	gatttcccac	attgatggag	gtattggagt	ga		402

<210> 4466

<211> 453

<212> DNA

<213> B.fragilis

<400> 4466

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accttcgaga	tgctgcaagt	aatgaactgc	ctgtggaaca	aacaaggcat	cagccagcaa	180
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tatgcccaaa	ccggagcaga	gatggaggca	agccggataa	cggaatgcat	cgaagacctg	420
aagagactgc	atgaagtgc	caatgagatc	taa			453

<210> 4467

<211> 1080

<212> DNA

<213> B.fragilis

<400> 4467

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gtaaactact	tctggaaata	cgcccgctac	gagataacca	atgatgccgt	agtggatcaa	180
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caggccgtca	gccaacagga	ttatgaactg	gccaaagcga	acttcgaagc	gaccggggca	540
agatacaacg	ccctgttgcg	acaaaaagaa	gcggcccaat	cgcagtattc	cgaaaccagc	600
aaacgcagta	caggcgccga	agccaatatc	ctccggaagg	aggccgacct	ggagatggcc	660
cgactaaacc	tgtcgtatac	cgttgtcacc	gcaccctatg	acggatacac	gggacgacgt	720
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aatgacaagt	gggtgacagc	caattataaa	gagactcaaa	tagcccatat	ctatatcggg	840
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<210> 4468

<211> 1296

<212> DNA

<213> B.fragilis

<400> 4468

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<210> 4469

<211> 195

<212> DNA

<213> B.fragilis

<400> 4469

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<210> 4470
 <211> 201
 <212> DNA
 <213> B.fragilis

<400> 4470
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<210> 4471
 <211> 573
 <212> DNA
 <213> B.fragilis

<400> 4471
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<210> 4472
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 <212> DNA
 <213> B.fragilis

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<210> 4473

<211> 1209

<212> DNA

<213> B.fragilis

<400> 4473

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<210> 4474

<211> 1014

<212> DNA

<213> B.fragilis

<400> 4474

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<210> 4475

<211> 1194

<212> DNA

<213> B. fragilis

<400> 4475

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<210> 4476

<211> 1266

<212> DNA

<213> B. fragilis

<400> 4476

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<210> 4477

<211> 252

<212> DNA

<213> B.fragilis

<400> 4477

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<211> 690

<212> DNA

<213> B.fragilis

<400> 4478

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<210> 4479

<211> 210

<212> DNA

<213> B.fragilis

<400> 4479

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<210> 4480

<211> 2169

<212> DNA

<213> B.fragilis

<400> 4480

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<210> 4481

<211> 1032

<212> DNA

<213> B.fragilis

<400> 4481

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<210> 4482

<211> 2034

<212> DNA

<213> B.fragilis

<400> 4482

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<210> 4483

<211> 1359

<212> DNA

<213> B.fragilis

<400> 4483

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<210> 4484

<211> 396

<212> DNA

<213> B.fragilis

<400> 4484

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<210> 4485

<211> 504

<212> DNA

<213> B.fragilis

<400> 4485

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<210> 4486

<211> 1278

<212> DNA

<213> B.fragilis

<400> 4486

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<210> 4487

<211> 1332

<212> DNA

<213> B.fragilis

<400> 4487

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<210> 4488

<211> 1050

<212> DNA

<213> B.fragilis

<400> 4488

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<210> 4489

<211> 294

<212> DNA

<213> B.fragilis

<400> 4489

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ctacatggag	catgttccgg	gtccaaagtt	ttgatagtga	tgctaaatga	aaggcctcgg	180
tggcctccat	tgacgcccc	ttcgataact	aatttttagca	agcagatgct	gacgatggaa	240
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<210> 4490

<211> 183

<212> DNA

<213> B.fragilis

<400> 4490

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gaaatattta	ctatttttat	taattgggtg	tggagagtat	cggactcgaa	ccgatcacct	180
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<210> 4491

<211> 2202

<212> DNA

<213> B.fragilis

<400> 4491

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<210> 4492

<211> 1527

<212> DNA

<213> B.fragilis

<400> 4492

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<210> 4493

<211> 522

<212> DNA
<213> B.fragilis

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gccccaatatg catacaaaat gaactccgcg accaatcaat ggatattaga gaaagacgcc 480
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<210> 4494
<211> 219
<212> DNA
<213> B.fragilis

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gagagctatc aggagcggga tgacgaatac atatactctg atcttcgggg atgcgaacca 180
atcgagtgtt ttcccgtagg taaatgtata gagcgtttag 219

<210> 4495
<211> 183
<212> DNA
<213> B.fragilis

<400> 4495
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ctaaaatgga tcgttttttg ggagcagttt cctttgcgga gtggcttttag ggcaaaaaaa 180
taa 183

<210> 4496
<211> 858
<212> DNA
<213> B.fragilis

<400> 4496
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<210> 4497

<211> 741
 <212> DNA
 <213> B.fragilis

<400> 4497

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<210> 4498
 <211> 294
 <212> DNA
 <213> B.fragilis

<400> 4498

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<210> 4499
 <211> 1623
 <212> DNA
 <213> B.fragilis

<400> 4499

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1777

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<210> 4500

<211> 933

<212> DNA

<213> B.fragilis

<400> 4500

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<210> 4501

<211> 528

<212> DNA

<213> B.fragilis

<400> 4501

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<210> 4502

<211> 192

<212> DNA

<213> B.fragilis

<400> 4502

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<210> 4503

<211> 1875

<212> DNA

<213> B.fragilis

<400> 4503

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<211> 186

<212> DNA

<213> B.fragilis

<400> 4504

tgcactttct	tcataaatca	gtctgatcac	cgttttatag	tcatagtttg	ccattgcttc	60
ttgaacggag	gcggtgttct	gggctcgag	cattacgctg	aagcccagat	agaggaggag	120
tatccaatgt	ttcatgaggg	gatagattct	attgtttctg	acttttctaac	ggtattcctt	180
ctttga						186

<210> 4505

<211> 1863

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (1100), (1146)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4505

cgagctaata	tcatgaaaaa	attattgtta	ctcttaggtt	cattcctact	gtcattaacc	60
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aatccggaac	tccagttaat	ggtatacggg	gaaggcatcg	gccaggcatc	cgatatcagta	180
aattatcccc	gtgtatcgct	cagcagcgtc	gtgaaactgg	aaagcaacaa	ttacctgctt	240
gtctacctac	atctcgataa	agaagtaaag	ccgggcaaga	tgcccatcac	atttacgggtc	300
ggaaagaaga	aattggtgaa	agagtacgaa	ttgaaagcac	gcagcaaagc	cggagtcgat	360
cacaaagggt	ttgacgcac	ggatgcatta	tatctgctga	tgccggaccg	tttcgccaat	420
ggcaatccgg	ataacgaccg	gatagaaggc	atggccgaat	ataaagtgga	ccgcaacgac	480
ccgaacgcac	gtcacggagg	cgacctggcc	ggatctgaac	aaaatctgga	ctattttacc	540
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tcatatcacg	gatatgcaac	aaccgattat	tacaaggtag	accacggttt	cggcactaac	660
gaggaatatc	gctcactgat	agcgaaagcc	cacaaccggg	gcattaagggt	cgtgatggac	720
atgatcttca	atcattgcgg	agtagaacat	ccctggatca	aggacatgcc	ttcaaaggac	780
tggttcaacc	atgcggactt	caagaacaac	tttgtgcaaa	cttcctacaa	actgactcca	840
catgtagatc	cgtatgcctc	ggagtacgat	ttcgaccaga	tgaacaacgg	ctgggttcgtg	900
gaagccatgc	ctgacctcaa	ccaaaagaac	cctcacgtat	acaaatacct	cttgacagaac	960
agcctgtggt	ggattgagta	cgccgatatc	gacggcatcc	ggatggacac	ctaccctgat	1020
gccgattacg	atgccatgag	caactggatg	aaagaactga	acgaagatac	ccccactaca	1080
acacggtggg	cgaaacctgn	gttaccgaaa	ccgcctatac	agcctggtgg	cagaaaagaa	1140
cttcanaact	ttcgccccgg	caacaagtac	ttgaaaacaa	gcatagaattt	caactttctcc	1200
gacaaagtca	acaccgccaa	gaatgaacaa	accgacacct	ggttcaaagg	atggaaccgt	1260
gtctacaaca	attttgtata	cgattatctg	tatcccaatc	cggcttccgt	actggctttc	1320
atcgagaatc	atgacaccga	cgttttcttg	ggtgaaggcg	aaaacctcga	tatgctgaaa	1380
caggcctcca	cccttttatt	gaccaccgca	cgcactccgc	aactctatta	tggaaacggag	1440
gtgatgatga	acggagtaaa	gagtaaaagc	gacggctatg	tacgaaagga	cttcccgggc	1500
ggatggacgg	acgataaaga	gaatgccctg	actcccagag	gacgtaccgc	attgcagaat	1560
gaaagctata	acttctaccg	caacctgctg	aactggcgta	agggcaacga	tgtgatcgcc	1620
aaaggcagca	tgaaacagtt	catggtgcag	cacggcgat	atgcttatgc	acgccaatat	1680
aaagggaaaa	cggtattcgt	cctgttgaa	ggtacggata	aagaggtgaa	acttcccctg	1740
aaatactatg	ccgaagtgtc	gaaagacaag	actcaaggaa	aagacgtcat	tagcggaaaa	1800
gtaacggcac	tcaatgaaga	actgacaatg	gcaccccgcc	aatcgatggt	tatagagctt	1860
taa						1863

<210> 4506

<211> 267

<212> DNA

<213> B.fragilis

<400> 4506

aaaacgaata	ttaaaatgaa	aaaagggtctt	catcctgaat	cataccgtcc	ggtagtattc	60
aaagatatgt	caaacgggtga	tatgtttttg	tctaaatcaa	ctgtagctac	aaaagagacc	120
atcgaattcg	aagggtgaaac	ttatccgtta	ctgaaaatcg	aaatctctaa	cacttctcac	180
ccgttctata	caggtaaatc	tacattggta	gatacagccg	gacgtggtga	caagttcatg	240
agccgctacg	gtaaccgtaa	gaaataa				267

<210> 4507

<211> 573

<212> DNA

<213> B.fragilis

<400> 4507

attatctgta	taatgaaatt	cataaggaag	tttccgggtga	ccgatgcgga	tagtctggaa	60
agtccccaaa	agtttgaggg	cttctttctt	gattattatc	cccgggtcaa	aggattcatt	120
aatggcttgt	tacaggatgc	tgaagaggcg	gaagatcttt	cgcaggatat	atttatgtca	180
ttgtggcaga	accggggaaa	tctgaagcag	atagacaact	tggatgcata	cctgttccgt	240
atagcccgga	atgcggtttt	ccggtacatc	gagcgctctt	tggtatttaa	aaattatcaa	300
tccaggcagt	tatcggatga	taactccgat	ctgtatgaaa	tagaatcgga	actgaacgcg	360
aaagaattag	aactgattat	agccatcgct	gttgaaagaa	tgccctctca	aagaagaaaag	420
atztatcaga	tgagccgcga	acaggggctt	agtaatgaaa	atatagctcg	tgaactgaac	480

attagcaagc gtactgttga gaatcatctg acccaggctt tggctgatat acgtaagata 540
 ttgttttggg tcatcatggc tacttttcgta taa 573

<210> 4508

<211> 852

<212> DNA

<213> B.fragilis

<400> 4508

aatccttagta ttatgaaaag atttcttgtc ttatcatgca gtgttgccat atcggcactt 60
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 gatgcagttt cggagaagat cgttttccaa gatgatttca accaggcaga tagtattcct 180
 gatagaaata aatggagttt gtgtaagaag ggaagcccgg cctggagcaa atattttatcc 240
 gaaagctatg atcaggctta tgtacacgat ggaaaattag tgttggttgc cgaaaaagtg 300
 aacggagtat ataagacagg aggagtgcaa tcattgggta aagcgggaatt tcaatatggt 360
 aagatagaga tatgcgcccg tttcaccaag acggcaaagg gcggatggcc tgccatctgg 420
 atgatgcctg ccaaaccctg ttacagtggg tggcctgctt gcggtgaaat agatattatg 480
 gaacagttga atcatgatgg cattgtatat cagacaattc acagtcatca taaaaatgat 540
 ctgggattca ctaagcctgt tccgacaaaa acagtgtctt acaataaagg gcaattcaat 600
 atattttggtg tgcagtggac tcccgaagct cttactttta aggtgaatgg agctgctact 660
 ttagtttatc ctaacttgca cttggctgat gagagtgtca aaaagcagtg gccgttcgac 720
 acctcttttt atttgatttt aaattatgcc ttgggtgggc ccggaacttg gcccggtact 780
 ataacggata gtgaattgcc tgcaaagatg gagattgact gggtaaaagt gagtgcgcct 840
 acgggacggt aa 852

<210> 4509

<211> 1563

<212> DNA

<213> B.fragilis

<400> 4509

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 gctcgttttag gtggtggcga aaaggctatt gaaaaacaac acgccaaagg caaatataca 120
 gcccgcgagc gtattgcaca gttgcttgac gaaggtagtt tcgaagaact ggatattgtt 180
 gttcaacaca gatgtaccaa tttcggacaa gagaaaaaac atttctctcg cgacggtgtg 240
 gtaaccggtt atggaacgat agaaggtaga ttagtatatg ttttcgcaca agatttcaca 300
 gtattcgttg gttcactgtc ggaaaccatg gcacaaaaga tctgtaaagt aatggatatg 360
 gccatgaaga tgggtgcccc tggtatcggt atcaacgact cgggtggcgc acgtattcag 420
 gaaggcatca acgcctgtc cggttatgct gaaatcttcc agcgcaacat catggcttcg 480
 ggtgtcatcc cacagatttc aggtattttc ggtccgtgtg ccggcggtgc ggtttactct 540
 cccgcctga cggacttcac gctgatgacg gaaggtagat cttacatggt cctcaccgga 600
 ccggctgttg tgaaaacagt aacgggtgaa gacgtgtctc aggaagatct ggggtggtgca 660
 agcgtacatg ccagcaagtc cgggtgtaact cacttcactg ccgaaaccgg tgaagaaggt 720
 ctggcgatta ttcgcaagct tctcagcttt attcgcgcaa acaacctgga agaagctcca 780
 ttggtgaact gtaccgaccc catcgaccgt atggacgacc tgctgaacga gatcatcccc 840
 gacagcccga acaaaccgta cgatatgtac gaagtgatcg gcgccatcat cgataacgga 900
 gaattcctgg aagtacagaa agactatgcg aaaaatctta ttatcggttt tgcccgtatg 960
 aacggacaat cggtaggtgt ggttgccaat cagcctaaat acctcgccgg agtactcgac 1020
 agcaatgctt cacgcaaagg tgcacgcttc gttcgtctct gcgacgcatt caacattccg 1080
 ctggtgacat tggtagacgt tccgggattc cttccgggta cgggtcagga atataatggt 1140
 gtaatccttc acggagccaa gttgctgtac gcttatggtg aagccactgt gcccaaggta 1200
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 gcagtagcgg tattgtatgc caaagaagcc aaagatcagg aaaaccctgc tcaattcctg 1380
 gcagacaagg aagccgagta cactaaactg ttcgccaacc cgtacaatgc agccaaatc 1440
 gggtacatcg agatgttat cgaacagaga aacactcggt tccgcgtgat ccgcgcctg 1500
 caacagctgc agacaaaaaa attaaccaac cctgctaaaa agcacggtaa tattccattg 1560
 taa 1563

<210> 4510
 <211> 441
 <212> DNA
 <213> B.fragilis

<400> 4510
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 aacgatgtag aagataacat agccaacggt gaagtgaacg gaacctctta taaagtagag 120
 ttggacaagc cgtcaaagc cgctccgaaa ccggtgacct gtccggcagc cgctccgaaa 180
 acgaaaacag gtgctccggt agtaaccaaa caaccgacag cttccaaaaa agacgggtgtg 240
 aaatctccgc ttccggggcgt tatcctcgac ataaaagtga aagaagggga taccgtgaag 300
 agaggccaga cgatcatcat ccttgaggct atgaagatgg aaaacaacat caatgccaat 360
 aaagacggaa aagtagcaga aattaaagtt aataaaggag attctgtact tgaagggtaca 420
 gacctcgtaa tcattgaata a 441

<210> 4511
 <211> 1059
 <212> DNA
 <213> B.fragilis

<400> 4511
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 tttgatcctt atagggtatt acacccttac aaacgattcg acgactctcc catgctactc 180
 aacgaagccc atgtgggatg gcagaattat ctgcagaatc gcgattcgat agcctataac 240
 tccttttatac tcggcaactc ctgtaccatg gcattcctga caggagaatg ggaaaaatac 300
 ctggataaga acgaccatgc cgtacgcttc tatgacaacg gagaaagcct gggcggcgctc 360
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 gccgaagcag ccggcatcag ccaattggga ttccagttga gattcctgca ggagttcctt 540
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 atgaaagggg ttataaatcc gggagatccc gtcagggagc cttacacgaa caattttatc 660
 aatcccagag aaaaagagat cgcgcaagat ggcgaaatat actggagccg tcatgaaaaa 720
 gaattcaaga agcgaacgaa tgcgggtatg gaagaacttc ctgttatatt tgccagccag 780
 attcaggtac ttcgctccat caaaaaaatc tgcgataagc accacacgaa cctgaagttc 840
 gtcatcggtc cggattacta tcagaaaaaa gccagccggg aagacataaa aatattgaag 900
 gctatactgg gtgattccgc tgtctgggat ttacgggaa tcaacgaata cacagccgac 960
 atacatcatt attacgaacc cggccattat cgtccgctgc tgggagcacg cttactgaaa 1020
 gccatttatc aggatcaaga cacctgccac aggcataaa 1059

<210> 4512
 <211> 1617
 <212> DNA
 <213> B.fragilis

<400> 4512
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 gccttttacgg cttgcgaaga tgagaagtcg cccgtcatgg agttgcagaa agcctctgct 120
 tttgagcctt tctctcaaag cgactttact ttcaacgatg aaaatgctgc ggctgagttt 180
 cccgagatca agtggacggc agcagactat ggagtgaagg cagtggtgaa ttatgacgtt 240
 aactgacga atgatgcgaa tgcgaaaact gtcttattgg gtgaaactgg aactaccagc 300
 ctgaagttta ccaatggaca gatgaacact atgatggcta aggtgggggc ttatccggga 360
 cagacttata actttacgat tacgctgact tctaaagcgt atgacatgac tgctgatcca 420
 gcttcgaact cgattacttt taaggcgact ctttttgatc cgaatgcggt tgactggaag 480
 ttcgcttatg tggccgtggg ctatccggac tgggactata cgaatgctta cctgttgggc 540
 gatcccgatg gtgacggggg ataccaggga tatgccaaact tcgatgcgga tggcgtttcg 600
 tatgctatta tagacggaag tgatcttacc aagattctgg caaaggatca gacggctgct 660
 aaaaaaggat tctacgggat caaagtagat gccgaaggta aggtggaaca gaccgaaccc 720
 cttgtatggg gagtgggtgg agacgctact tccggtgggt gggataagga cacacaaatg 780

gactatgacg	ccaccacccg	cttatggacg	gttactactt	cattgcttga	caaagagttt	840
aaattcaggt	cgaacaataa	ctgggattcc	gataattacg	gagcggatc	cggtaaaggag	900
tccgaacttg	aaggcgaact	ggtggcaggg	cctaataatt	ttaagggtgt	gaaagccagt	960
ccatacgtga	tcaactatgaa	tctgacaaat	gccggtaaat	attccttatag	catggtagaa	1020
actaccattg	aattgtcgag	tgcggaaatg	gcattgccgg	gaagctatca	gggatgggac	1080
gctactaaag	atgattgtta	caaagtgcaa	tctgctgccc	gcgactttat	ctataccgga	1140
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ctgggtggca	gcctgggggc	actgactcag	gatggtgcta	atatgaaagt	gacagccgga	1560
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<210> 4513

<211> 633

<212> DNA

<213> B.fragilis

<400> 4513

tgctttcgga	tggtgatttc	cagtatatac	cttatatttatt	tatttatcag	tatgcttgct	60
aacttagatc	gttataaaat	cgtattggcc	tctaattctc	cgctcgcaa	agaactgatg	120
acgggcttgg	gtgtcgatta	tgtagtaaaa	actttgccgg	atgtggacga	atcttatccc	180
gatacgttgc	aaggtgaaga	gattcctctt	ttcatagccc	gtgagaaggc	agccgcctat	240
cagtcgatga	tccgaccgga	agagcttttg	atcacagccg	ataccattgt	ctggcatgaa	300
ggcaaagcgc	tccgcaaacc	tgttggaagg	caggatgcca	tagagatgtt	gcggagcctc	360
tccggtaaat	cgcaccaagt	gattaccggg	gtgtgtctca	ctacccgaga	atggcaaaaa	420
tgtttcgctg	ccgtgacgga	tgtccgtttt	gcgattcttg	atgaagatga	aatcgcttat	480
tatgtcgatc	actatcagcc	catggacaaa	gccggttcgt	atgggtgtgca	ggagtggatc	540
ggttttgtcg	gagtagaatc	catatccggc	agctacttca	atgtaatggg	acttcccatt	600
cagaaattat	acagggaatt	gaaacaacta	tag			633

<210> 4514

<211> 603

<212> DNA

<213> B.fragilis

<400> 4514

agtagtcgga	tttcccacat	tgatggaggt	attggagtga	ttcagccggg	aaaagaaaaag	60
attattcttg	gcattgatcc	cggtactacg	atcatgggat	acggagtgtc	ccgtgtttgc	120
gggacaagac	ccgagatgat	cgctatgggg	atcatcgatt	tgcggaagtt	cggcaatcat	180
tacctcaaac	ttcgtcatat	ccacgaacgg	gtgcttagta	ttatcgaaag	ttacttgccc	240
gatgaactgg	cgattgaagc	tccttttttc	gggaaaaacg	tgagtcgat	gctgaagctt	300
ggacgtgctc	agggagtagc	gatggcgggt	gcgttgagcc	gtgatattcc	tattactgaa	360
tatgccccgc	tgaaaataaa	gatggccatc	accggcaacg	ggcaggcctc	taaagaacaa	420
gtggcggaata	tggtgcaacg	catgctgcat	tttgccaaag	aggatatgcc	tgtttttatg	480
gatgctaccg	acggattggc	agctgcttat	tgccatttcc	tgagatggg	gcgtccggta	540
atggagaaaag	ggtatagcgg	ttggaaagat	tttatagcca	aaaatcccga	aagagtaaag	600
tag						603

<210> 4515

<211> 357

<212> DNA

<213> B.fragilis

<400> 4515

aagttttattg	ttagtgaatt	aaaaattcta	tgcaaaagta	agaataatcc	tttgaataga	60
gaaaccctcg	ggcggaaata	tccgtttgag	gagcgtaatt	caattctatt	tcaaattatt	120

tcccatcctt	taagagctgt	ttgtaatgtc	tacgtagcaa	ataaagggtt	tttattgttt	180
cctcatatat	ataatggtag	gcaaattgatc	gctgtaacca	tccaaccaca	ctctgccacc	240
atatgtacgc	aggggtgcac	ccttatattt	accatcctgc	tgaaacaggt	aatcgcgcat	300
gaaaacttca	ttgtgatcat	atttcaatcc	ttttgttgct	tgaagcagag	tggatga	357

<210> 4516

<211> 927

<212> DNA

<213> B.fragilis

<400> 4516

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tgcatggggc	tcagggcgca	aagtgccacc	agtctgagaa	tcaatgaggt	tttggtcgtc	120
aacgaccaga	actatcagga	tgactacgga	ctgcacaatg	cgtggataga	gatattcaac	180
acctctttcg	cttctgtaaa	tctggaaggt	tgctttctga	cgaacgataa	aaacaatccg	240
accaaataatc	ctattcccaa	aggcgacgtg	ctgactctga	tcaagccgcg	ccaacatgct	300
ttgttctggg	cagacggaat	gcctaaccgg	ggtacgttcc	acgtgaactt	tacgcttgac	360
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gtaaccatac	ccgccgggtc	gcttgccgac	cgttcatacg	ctcgcgaaaa	agacgggaagt	480
gccaaactggg	tagtaaaagg	tgaaggagaa	cacagctatg	tactccgag	caccaacaat	540
atgactatcg	acaaaaaccc	gaagatcgag	aacttcaaga	aacacgactc	tatcggtatc	600
ggtatggcca	tcacgccc	gtcggtcgta	ttcataggtt	tggtactctt	gtatctttca	660
ttcaaggcgg	taggtaacgt	agctgtcaga	ttgggtaaga	aaaacgcgat	gaaagccacc	720
ggtatcaccg	acaagacgga	agcgaaggaa	aagaacctgg	gtagccacac	aggtgaagaa	780
accgccgcaa	tcgccatggc	tttgcataaa	tacctgaatg	acgctcacga	cgttgaagac	840
atgattttga	ccatcaacaa	agtgaacgc	acctactcac	cctggagttc	gaagatctac	900
acactgcgtc	agactccgaa	aagataa				927

<210> 4517

<211> 315

<212> DNA

<213> B.fragilis

<400> 4517

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gacaccgtac	accagtctgc	cgctctgcgt	gtatccgtat	cggtggtcag	cgagatccgc	120
catggacgtc	ctgacgagaa	cgatagattc	cgggttccc	aagtagcggc	aaaatcaatg	180
ccttgcctca	aaaaaatctc	actatcagaa	gaaagaatca	gagaatcggg	ttctttctct	240
tccgacgagc	aaccgaaacc	aatcagcgga	agcaggagga	acagaaacgg	aaaagttaaa	300
tatttcatag	attaa					315

<210> 4518

<211> 1092

<212> DNA

<213> B.fragilis

<400> 4518

agattttattt	cattggaaat	tgaagaatct	gtgctaatacc	gtgtaatctg	tggatgaactc	60
aaaaataaat	atatgaagaa	actaattatt	gcattcaact	ttttattggt	gctggcggtc	120
ggtggccggg	cacaggatca	tgccgacggg	ctgtacacgc	tagcttttta	caatcttgag	180
aatctgtttg	ataccattca	tgatacggga	aaaaacgatt	atgaatatct	tccggatgcg	240
gcaaaggggt	ggaactcgga	gaaatattgt	tcgaaactga	agaatctgtc	caaggtgctg	300
ggtgaacttt	cgcgtgataa	agtaccggca	ggacctgctg	caatcggtgt	ggcggaggtg	360
gagaactggc	gcgtgcttga	cgatctgatt	cgccaacccg	aactggctgc	cggaggttat	420
cgatacatat	attatgaagg	acctgacaaa	cggggcatcg	actgtgcgtt	gctgtatgac	480
cccaaacaat	tactccccca	tgcgactgca	ttgggtgctt	ccactccttt	cgagggagat	540
accatccata	aaaccctgtg	attcctgatt	gtaggcggcg	agctggcggg	tgataaagtc	600
tgcttgatag	tcaaccactg	gccctctcgg	ggggcggcgg	aaccggtacg	cgtgcacgct	660
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<210> 4519

<211> 1062

<212> DNA

<213> B.fragilis

<400> 4519

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gcaggtgtat	ccgcctgacc	cgactcggca	cgtatttcac	aggtaatcgg	tttggaaatat	960
gatccgacca	actatctgct	gatgcacgcc	atgggtccta	acgtagcggg	ggttatcggg	1020
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<210> 4520

<211> 585

<212> DNA

<213> B.fragilis

<400> 4520

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cgtaaaggag	agctaaccgg	aacagtcgat	ggcggacggg	atgcattgct	tacctgggat	300
cgtctcgaat	tcaatatgcc	ccggaaaaat	ccttcgggtat	ggattccctg	gaagctgatt	360
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gaagaggggc	cgcaacgaga	gttctatctt	ccggagtgtt	ggttacgtgc	cggagaaaag	480
aatgtgataa	tacttggatt	acgtcagtc	gaaacgaaa	gtgcctgcct	gtttgggtgct	540
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<210> 4521

<211> 252

<212> DNA

<213> B.fragilis

<400> 4521

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gcaattttat	tagtatgcgc	agctatgttg	gcttcgtgta	acggcctggg	tggtggaagt	180

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cgaattggat ga 252

<210> 4522
<211> 753
<212> DNA
<213> B.fragilis

<400> 4522
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atctctgaga actctgctac tgcaaaacag caaatagcat ctgatatcga attcatcaca 180
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aagaataatt cggcacagct gaagaaggct gttgagtctt tgactcagga attgggtgcc 300
aaaactcaac gtattgagga acttcaggct gaattggctt ctaagaatat ccgtattcag 360
gaattggatg ccgctgtaac cggctctgact gctgataaag aatcggtggc tgccgagAAC 420
gaagcaaaag ccaagaccgt agctgagcag gataaagcaa ttaatagcgc atgggtttgtg 480
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aagttatatt caaaacgtgc tgagttactc accactcatc ctgccaaatc ttatgaactg 660
gttaaagatg ataagggccca gttgactctg aagatcacaa acccgaaaga attctggagt 720
gtatctaagt atttggttat ccaagttaag taa 753

<210> 4523
<211> 246
<212> DNA
<213> B.fragilis

<400> 4523
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cttcgcgatt gctatgcacg gctcgacgaa ctctgtgaag atatgaatat cagcaaggac 180
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<210> 4524
<211> 2352
<212> DNA
<213> B.fragilis

<400> 4524
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aatgaagaaa cactgggtgg ggccaatata tacgtagagt cactgaaaaa agggacttcc 180
accgataaga acggtgaatt ttcaatagaa gtccttgccg gacactatcg aattgttatc 240
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<210> 4525

<211> 762

<212> DNA

<213> B.fragilis

<400> 4525

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<210> 4526

<211> 201

<212> DNA

<213> B.fragilis

<400> 4526

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gtgcccatta	aatcgtaaa	aagtgggtgg	ggggaaaaaa	aaaaactcct	tgtggatgaa	180
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<210> 4527

<211> 2169

<212> DNA

<213> B.fragilis

<400> 4527

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gatgctaagg	cacttgacga	agttgtagta	acagcaatgg	gtatctcaaa	agagaaaaaa	180
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aacctttcca	gcgctttgca	aggtaagggt	tcaggagtgg	aaatatctcc	gtcatcaggt	300
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aactctgtta	caggctccga	ctatgcgaac	cgtgcggtag	atatcgacc	gaatgacatt	480
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gaaatcggtg	cagacttcag	tttctggaat	ggtttgatct	cactgaatta	cacctattct	2100
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<210> 4528

<211> 222

<212> DNA

<213> B. fragilis

<400> 4528

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tcttccgagc	aggaagcaaa	tgcaacggaa	atcaatgcca	cagacaagat	accttttgat	180
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<211> 864

<212> DNA

<213> B. fragilis

<400> 4529

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aattcagatg	tagatatgca	agcattgctg	aacgacatag	agctggatat	tcaggagctt	180

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<210> 4530

<211> 660

<212> DNA

<213> B.fragilis

<400> 4530

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<210> 4531

<211> 2844

<212> DNA

<213> B.fragilis

<400> 4531

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<212> DNA

<213> B.fragilis

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1614

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<213> B.fragilis

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<400> 4535

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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cccgaatcat	cacagggaaa	caacaacatg	gccggtagct	ttgagcgttt	ctctcttccg		720
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<211> 666

<212> DNA

<213> B. fragilis

<400> 4545

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<210> 4546

<211> 477

<212> DNA

<213> B. fragilis

<400> 4546

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gacaaactca	acacattgct	tataaacgct	ttggtttcta	caggcgagtt	gaaggaaatt	420
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<210> 4547

<211> 1296

<212> DNA

<213> B.fragilis

<400> 4547

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<210> 4548

<211> 567

<212> DNA

<213> B.fragilis

<400> 4548

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<210> 4549

<211> 1503

<212> DNA

<213> B.fragilis

<400> 4549

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<211> 906

<212> DNA

<213> B.fragilis

<400> 4550

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<210> 4551

<211> 1398

<212> DNA

<213> B.fragilis

<400> 4551

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<210> 4552

<211> 252

<212> DNA

<213> B.fragilis

<400> 4552

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ctgagaaaact	cacacctttt	ggaggaatth	tttcaatcat	ggagaaatth	gactccatgc	180
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<210> 4553

<211> 252

<212> DNA

<213> B.fragilis

<400> 4553

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<210> 4554

<211> 678

<212> DNA

<213> B.fragilis

<400> 4554

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<210> 4555

<211> 1050

<212> DNA

<213> B.fragilis

<400> 4555

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<210> 4556

<211> 216

<212> DNA

<213> B.fragilis

<400> 4556

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<210> 4557

<211> 1173

<212> DNA

<213> B.fragilis

<400> 4557

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aatcggtgga	aacaaaaaca	agatacgaag	aatgttcata	accaagctat	tcaaagtata	360
gttaattata	ttagcaatca	tctgtttgaa	gattttgata	taattacatt	gtgccaaaag	420
tgcggaatgt	cagaatatca	ttttagaagg	gtattcaaat	ttattgtcgg	tgaaaatata	480
ggaaattaca	tacaacgact	tagattggaa	tatgctgcac	acttattgac	ttcaaccgaa	540

tatacattat	cccggatagc	ggaactggca	ggttatcaaa	acaaatacag	tattgcaaaa	600
gcattcaaga	agcatttttg	agtttcaaca	tccttattta	aagaaagatt	tacacctcga	660
aaacgaaatg	cacatacatc	gctaactccc	agaataataa	tgattaataa	aatgtttggt	720
tcttgtttgg	aagtggggaa	agcatacgaa	aataagtttc	aatataagat	ggtatgggat	780
aaactgttgt	attatgcaag	gttcaatagg	atagacaaaa	aacacacgaa	ctttgtcagt	840
ttaagtttgg	ataatccggc	aataacaccg	gaagataaat	gccgtttcta	tgtagggtata	900
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gctatattcc	ggcatatagg	tagttatgat	ttcttatgtg	atttatatag	aataatttat	1020
gaagaatggg	ttcctgatag	tcagtactat	ccccaaaaca	catttagttt	tgagggtgat	1080
ataaattctc	catgtgatac	agatgtaccg	gaattgataa	ctgacatata	tataacctgtc	1140
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<210> 4558

<211> 357

<212> DNA

<213> B.fragilis

<400> 4558

accgttatca	gggaaaggac	gaaactttca	agacattgta	tattcaagga	gcataacgac	60
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tgccctaaac	atctcatgaa	actgggttaa	cgtgactaca	aggtagatga	tatgctactg	180
cgtgaggtaa	acggggaaact	ggtgtatatc	ctttttgtca	tgttcctttc	ggataaagtc	240
tgccagtgca	ttaagaaaact	cggtcagttt	gcccggtttt	cgctttatca	cgctcctcatg	300
cttttggtaa	caatcgccta	tcttgatatt	gaacagccat	tcaaccctt	tggtataa	357

<210> 4559

<211> 339

<212> DNA

<213> B.fragilis

<400> 4559

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tccgtgtgtg	tgctgtgcac	ttatgaccgc	ctatacgtgg	aacttcaact	aaagcggagc	120
ataaaaagtcc	cactttgggt	gcaggaaaaa	gagaaatcga	caggcaaaga	cctaaattca	180
gtagaactta	actattacat	tgacgtcctg	cgtgtgaaat	tctatcagat	ttacaaaaac	240
ctggaaccgg	agggaaagat	tatctccgca	cgtgccatag	tgaaccgtta	tcagggaag	300
gacgaaactt	tcaagacatt	gtatattcaa	ggagcataa			339

<210> 4560

<211> 474

<212> DNA

<213> B.fragilis

<400> 4560

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gttggtggaaa	tacgtactac	tgtaaaagaa	atagctatgg	ttattggcag	aagctttatg	120
gaaatagaaa	cgttgtttta	agaacaaaat	gctgtaatgg	cagatgttcc	ttttgtggaa	180
tatcttaatt	ttgaatccat	gtcagaaggt	attcacatga	ttattggatt	caaatcagct	240
aaagtcctgt	gtggaaagg	gaacataaga	gcgattacca	ttccgggcag	aaaaatagta	300
tcttgcttac	ataaggggaa	ctatactgaa	ttagcttctt	tgtatcgtga	gatgcaggaa	360
tggaattgctg	ctaaagggtta	taaactttca	ggggcatcga	tagaatatta	ttatagtaag	420
ccgggaactt	cagaagaaga	actggttact	aaggttgaaa	tgccagtttt	gtag	474

<210> 4561

<211> 1977

<212> DNA

<213> B.fragilis

<400> 4561

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caaaccaatg	ccccatttg	gggtgaagcg	cagcctatga	aaactgtaaa	agtaaccacc	180
tcatgggatg	ggaagacgta	tgcggttcag	gctgataaag	caggaaaatg	gaaagtaact	240
gttcacacgc	ctgttgccgg	aggaccatac	gagattgcct	tgacagatgg	taagaaagta	300
aatttaaaaa	atgtgatgat	tggcgaagta	tggatatggt	cgggacaatc	gaatatggaa	360
atgccattag	ggggatgggg	aaagattaca	aattaccaga	aagaaattgc	agaagccgga	420
cactctaata	tacgactcct	gcaaatagaa	caaatcaaca	gtaccaacc	ggaaacgaat	480
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aaagctgaga	tagacggaga	caaaattata	gtcagtgcac	ctgaagcggg	accttatccg	1860
gttgctgtgc	gatatgcttg	ggccaataat	ccggtctgca	atttgtataa	tggagcagga	1920
cttccggctt	cacctttccg	aacagatgac	tggagaggaa	ttacacaaaa	ggattaa	1977

<210> 4562

<211> 1545

<212> DNA

<213> B.fragilis

<400> 4562

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acaacacttc	ttattgcatt	aaatagatta	gggtgacaatc	tagcattcag	cagaaatctt	180
agaacaagtt	ctgccggctt	tgattctttc	aaagatgctc	agattattta	tagtacacaa	240
aatgaatctg	ttacttatca	tcgaacagga	attagatggg	ttccaacccc	caaaagtaaa	300
agcaatttaa	ttaagacttt	cccttgccaa	aatatattat	atttgagtac	atctgggtta	360
agattttatg	cacaagaacc	aaaagattta	aaagactatc	atcataatac	agttagtgat	420
gaaataataa	atccttttaa	tgatatatta	cagactgaaa	aatttcgcaa	tcttaaataa	480
ataaaaagta	aaaatataaa	agggaaacaa	cgccgtttac	atagaaacaa	taaattgtat	540
gttataaaaag	attctcagag	taattattac	tctgaacaaa	attttagctt	aggggaaaga	600
cttctattaa	atacacttga	ttttattgag	gcaattaaag	aaaaaagcct	tcttcttatt	660
gatgaaatag	aattagcttt	acatccaatt	gcgcaagtta	aattttacaa	ttacttagaa	720
catatagcta	aagataaaaa	actaatagtt	atcatatcaa	ctcattctag	ttcgcttata	780
aagcatgcc	aacaaagaat	ctatcttgaa	aataataatg	gacagatttc	tgttttaaac	840
aactgttatc	cagcttatat	actccgagaa	attgctacag	aagaagattt	taaaccagat	900
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tattttaaag	aaaaaaatag	caaccttata	tgtaaagtca	ttcctgttgg	agggtataga	1020
caagttgtcg	aacttatgga	aaaatatcca	acgttatctt	accctataaa	caaaatgcaa	1080
tcaatgcttg	acgcagacgt	caaagatact	tacagagaaa	tattaagaaa	atctgaaaaa	1140

acagatgctg	atgtagcatt	tatcgacttg	tttagaagaa	ataaaaaaaaa	tatcagtttc	1200
ttatccatta	cgccagaact	tggtacttgg	gaatggctga	cttccaattc	taatatcttg	1260
caacaaaata	tagaaagtaa	atatgggaga	ttatctttta	atttaacaac	aaaaatacaa	1320
acagttgaaa	gagaagaagc	tggaaacaaa	aatggcaatt	tgcgtaattg	ggcaaaaggc	1380
tgttttaaaa	acttagcatc	ccaaatatgt	ccattaattg	tagattttca	agaaacagat	1440
ttattttaat	gtatttttga	aagttatata	gaggatttta	catctgattc	aaccaatatg	1500
aataaaatca	aggctttttt	gggtaaaata	ttaaaccgaa	aataa		1545

<210> 4563

<211> 213

<212> DNA

<213> B.fragilis

<400> 4563

cgatcgaata	ttttggataa	attttctttg	gctatccctt	ttccagaatt	ggatatacaa	60
aaaattaacg	actgggtttc	cactttcaac	tctattgtga	taattccttt	gtcgggctg	120
tacttaaaag	cggtggatat	taaattgctg	acaatcttat	taaagcaact	gatatccgta	180
ttccattcaa	tgcccggaga	aatatgcaac	tga			213

<210> 4564

<211> 249

<212> DNA

<213> B.fragilis

<400> 4564

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cagcgcaaag	tttctgtttt	cgagttggca	gaagctattg	aggaattggc	tatgcatgta	120
gccaattttg	gtatcaacga	acaggattac	agcgttttac	tccgatattt	ttcctttggg	180
ttacatcgtc	ttaaatcgta	ccgtatgcgg	tttgagcaag	aaaaaaatgc	cctatttgca	240
tttaattga						249

<210> 4565

<211> 225

<212> DNA

<213> B.fragilis

<400> 4565

acaatgaaaa	ttgcaaagaa	gttggtattg	gtgattttctt	atataatata	tcttctttct	60
tttgtaaaaa	gaagaaaaga	aattatcttt	gtcctcagta	ttctccatga	gcgaactacc	120
gcaaaagctc	atagcaaatt	aatgagaaaa	ttcatggaat	atgctgaaat	aaaagaatat	180
aaagctttta	atattagcgt	ggtaacttta	caaggagaat	tctag		225

<210> 4566

<211> 663

<212> DNA

<213> B.fragilis

<400> 4566

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tgcttgcccg	gtgaatggta	tgattgccat	gctccggttt	ttctagaact	aaaaggaaaa	120
actcaccgtt	tgttgatgag	atacaattca	ctgtcttatg	aacaaaaaga	agaaaaatat	180
gcgattctga	aagaaatggt	cggtagtata	ggaacagagg	tttccgtagg	acattctttt	240
ctctgcgatt	atggatgtaa	tattcatatt	ggtgataatg	ttacggtaaa	tatgggctgt	300
gtgtttgtcg	attgcaataa	gattacagtt	ggttaataatg	tactgattgc	tcctaattgtc	360
cagatttata	cggcaacgca	tcccattgat	ttgaatgaac	ggttaacacc	tggtgaggca	420
ccggaggagg	ttcgatatgt	ccgtcataca	tttgcccttc	cggtcactgt	tgaagatggg	480
tgctggatcg	gtgggtggagt	tatttatattg	cccgggggtta	ctattggtaa	gggaagtgtt	540
attgggtgccg	gaagtgttgt	taccacaaat	gttctctgca	acagtctggc	tggtggaaac	600
ccatgtaggg	tgattcgtca	aatcaataaa	tctgaaaatt	atgatccggc	tggtagcttt	660

tga

663

<210> 4567
 <211> 513
 <212> DNA
 <213> B.fragilis

<400> 4567
 gatatgaact ttttagaact tacaaaaaaa cgtttctcgg tgagaaatta taagtcagac 60
 agggtcgaac aggataaaat cgactatatc attgaatgtg cccgttttagc tcctttctgca 120
 gttaattatc agccttggca tttcatgggtg gtggtcagtg aagaacaaaa acagaattta 180
 cggcaatgtt ataatagaga atgggttcgca cgggcaccgg tatacattgt tgtttgtgcc 240
 gataaatcga tagcatgggt acgtaaatcc gataacaaaa atcatgcgga tatcgatgct 300
 gctatcgcta cagagcatat ctgttttagcc gcagccgaaa tagggctggg aagttgttgg 360
 gtgtgcaact ttgatccgga attgttttaa gctaatttca ggctgtcgtc cgaaagatat 420
 ccggtagcta ttgtatcatt gggatatatc caagagcaac ctgatcattt tactatccga 480
 aaggacaagg atgaaattgt tactttctta taa 513

<210> 4568
 <211> 783
 <212> DNA
 <213> B.fragilis

<400> 4568
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 gccaacgaac aggagaccat ttccgggaagt atcaaaggaa gtatcatttt tcgctatgct 180
 gaagcactgc tgatttatgc agaggcaaga gccgaactgg gtaacatcac acagaatgat 240
 ttagacatta ccattaataa actgcgtgat agggtaggta tgccacatct cacactttcc 300
 gtaggttata ccgatccgaa gggagacttt acggcagcaa gaggttatga gggggtagccg 360
 gtttccaatc tgctacagga gattcgacgt gaacgccgta tagaattagc atgtgaagggt 420
 taccgccacg atgacttaaa gcgttggcgt gccaccact tatggaatca cgatagaata 480
 cagggggcaa acgctgctca gtttgaaaac ctggattgggt tagtgaagta tttccaaaaac 540
 gacttccaca ttcccgccgc aatcaataag gcgattttca tggaaaagggt ggggcattgg 600
 agtcccgaac gtaatcagga caactactgg gtggacagtg aagggttattt tgaaccttat 660
 caacgccaca ttccggacgg acattttcat ttcgacccaa caaaagcgta tcttcagccg 720
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 tag 783

<210> 4569
 <211> 525
 <212> DNA
 <213> B.fragilis

<400> 4569
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 tacatcgtct taaatcgtac cgtatgcggt ttgagcaaga aaaaaatgcc ctatttgcat 120
 ttaattgatg aagcgatagg acttctaaac accgaaatac gccttatcga atggcgtatc 180
 aaatacacgg aacaactaca acaacgtgct aataagcaat tcctttcccc tctttttctc 240
 gctgacaaaa caacccttat caacattatg gaaatggtaa gcggtctgtt cctctccaaa 300
 agcatcatat atcagaacgg aaagcctgcc tattgggtgg acttatccaa aggggttgaa 360
 tggctgttca atatcaagat aggcgattgt taccaaaagc atgaggacgt gataaagcga 420
 aagccgggca aactgaccga gtttcttaat ggactggcag actttatccg aaaggaacat 480
 gacaaaaagg atatacacca gttccccgtt tacctcacgc agtag 525

<210> 4570
 <211> 1965
 <212> DNA
 <213> B.fragilis

<400> 4570

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gtgaatctct	cagataaaat	ctactacgat	gtcatttgcc	ggaatgagac	attgttaaag	180
cagtgtcacc	ttgcaatgga	aatcggtgac	caggaattgg	gaacgaatcc	taaaatgact	240
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tctgtaagta	atcgggtacaa	ccaacttctt	ctagacttca	aaggagggtta	ttccgtagag	360
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aatgtgaaga	atgagaccct	ccaagtgaac	ttccctgata	attatttgct	acacatgcaa	480
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agaaatgcgg	ttgggtgcaat	ggactatacg	ccgggtgccca	tgcttagtat	gcaaccggaa	1500
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ttcctgaaag	aaggacaatc	ttatcggatg	acttcttttg	aggatggggg	taatgctaac	1860
cgacaagcta	tggattacag	aaaaaaagaa	tatactctta	aaaaaggaga	taaaataata	1920
gtgcgtctgg	cacgtaacgg	aggattttgcc	tctgtcattg	agtga		1965

<210> 4571

<211> 357

<212> DNA

<213> B.fragilis

<400> 4571

aaaatccgga	cgactgcac	cgaggatatt	atgcgtgctg	tcaaagcagc	gccttttcagg	60
aacaggcccg	tccgcagatt	gaactttgct	gcctgggtgt	ctgctattgc	tgcaaccctg	120
cttctcgggt	tatgggtggc	agaggcagtt	gctgtcgatc	cgattctatc	ctcagagggtg	180
actcgtatac	cgaagcccta	tcaagagcaa	acactcaccg	atgagcgaaa	ctatgagaga	240
ttgatgacag	gagagaagcg	ggagatcttc	ttttccgcgt	cccgaagccg	gaaaaagaag	300
atgttttaaac	gggaacggct	ttatacccg	tacgaacaga	taatgaagaa	tgaataa	357

<210> 4572

<211> 297

<212> DNA

<213> B.fragilis

<400> 4572

gaaaggaggg	catccgggca	accagatgct	ctcttttttt	gttatatttt	atatgcgaac	60
ccttcaaatg	ttaatagtat	gaaacatctc	cggatcatct	gtataccgac	attgactttt	120
gcccggcttc	tgatgtttac	tccctctatc	ttgcaggcgc	aggataagcc	tgttttttccc	180
attgattcac	ttattacagt	aggatatgct	tccggaaata	agaaaaatat	ttccgggttca	240

gtagaaaaaa ttacggagtt gggcatgaat aaagatcaga taaccgatcc gctgtag

297

<210> 4573

<211> 2367

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (2344)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4573

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aatcgtggta	ttgaaaacaa	gctaactgga	accgatcggg	ttaataagat	ttttcctact	2340
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<210> 4574

<211> 1794

<212> DNA

<213> B.fragilis

<400> 4574

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<210> 4575

<211> 567

<212> DNA

<213> B.fragilis

<400> 4575

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<210> 4576

<211> 1080

<212> DNA

<213> B.fragilis

<400> 4576

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caggagacac	tgaccaaaaca	ttttcgttgg	ttctacacct	attataccta	taccggcatc	420
tatccggaat	tggcagataa	aggccccgta	cctctaaaga	actacctgaa	tgaatcgga	480
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gaattaagtt	tcgaagttat	ccggcctttt	atcgctgaga	tagatcgggg	gaagtatatg	660
tcccgtctgg	atgaagttaa	ggattcattg	tatctcggct	atcaacctaa	agatgatgat	720
ccggatcctg	atccggaact	catttgccaa	ttgctcgata	cgcattatca	taccgactgt	780
ttttctctgc	tttataagga	aaagcaacag	gaagtagata	aacgctttga	cgaagagaca	840
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cgtcttttgg	cgggtgaata	ttccttgacg	gcccgatcac	gggtacccaa	tgtctgggcc	1020
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<210> 4577

<211> 2520

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (204)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4577

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cagaacgtag	ccattttctca	ggatggacag	aaagaggcga	tggagcatgc	cggacgtacc	300
gggggacttc	cttttgctcg	tgtgggatgg	tataggctca	attttgatgc	tccttcattc	360
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<210> 4578

<211> 879

<212> DNA

<213> B.fragilis

<400> 4578

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<210> 4579

<211> 1704

<212> DNA

<213> B.fragilis

<400> 4579

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<210> 4580

<211> 207

<212> DNA

<213> B.fragilis

<400> 4580

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gccaaagatc	gatacatcgg	ctatcaggct	catgccgtag	aagagtttga	aggctgggtg	180
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<210> 4581

<211> 1188

<212> DNA

<213> B.fragilis

<400> 4581

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ggtgacaagg	aagcggaaga	aaagttttaa	gaagcagccg	aagcttacga	cgtactgagc	180
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aaagaggaaa	aaagcactct	ggagaaactg	gaggaatcaa	agaactttaa	accgagtact	1140
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<210> 4582

<211> 1635

<212> DNA

<213> B.fragilis

<400> 4582

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<210> 4583

<211> 252

<212> DNA

<213> B.fragilis

<400> 4583

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gatggattat	cttacgattt	agagacagcc	gcttccaact	tcccgtcctt	gttagctcaa	180
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accgtagtat	aa					252

<210> 4584

<211> 2526

<212> DNA

<213> B.fragilis

<400> 4584

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<210> 4585

<211> 1044

<212> DNA

<213> B.fragilis

<400> 4585

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<210> 4586

<211> 258

<212> DNA

<213> B.fragilis

<400> 4586

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gttattgctt	ggatactttt	ctttttccgc	atttggaat	acgaaatgac	aattgttaaa	180
tttcagctct	ctgtcttgta	cggattggca	tcggcaaata	atattttgaa	agagttattg	240
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<210> 4587

<211> 1062

<212> DNA

<213> B.fragilis

<400> 4587

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<210> 4588

<211> 879

<212> DNA

<213> B.fragilis

<400> 4588

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<210> 4589

<211> 786

<212> DNA

<213> B.fragilis

<400> 4589

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<210> 4590

<211> 768

<212> DNA

<213> B.fragilis

<400> 4590

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<210> 4591

<211> 894

<212> DNA

<213> B.fragilis

<400> 4591

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<210> 4592

<211> 1722

<212> DNA

<213> B.fragilis

<400> 4592

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<211> 183

<212> DNA

<213> B.fragilis

<400> 4593

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<211> 243

<212> DNA

<213> B.fragilis

<400> 4594

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<210> 4595

<211> 915

<212> DNA

<213> B.fragilis

<400> 4595

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<210> 4596

<211> 249

<212> DNA

<213> B.fragilis

<400> 4596

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<211> 264

<212> DNA

<213> B.fragilis

<400> 4597

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<210> 4598

<211> 1644

<212> DNA

<213> B.fragilis

<400> 4598

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<210> 4601
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 <213> B.fragilis

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 <211> 585
 <212> DNA
 <213> B.fragilis

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<210> 4604
 <211> 3597
 <212> DNA
 <213> B.fragilis

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<211> 1473

<212> DNA

<213> B. fragilis

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<211> 3504

<212> DNA

<213> B.fragilis

<400> 4606

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<210> 4607

<211> 1005

<212> DNA

<213> B.fragilis

<400> 4607

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 <213> B.fragilis

<400> 4608

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 <211> 612
 <212> DNA
 <213> B.fragilis

<400> 4609

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<210> 4610
 <211> 837
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 <213> B.fragilis

<400> 4610

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<210> 4611

<211> 918

<212> DNA

<213> B.fragilis

<400> 4611

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<210> 4612

<211> 2568

<212> DNA

<213> B.fragilis

<400> 4612

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<211> 252

<212> DNA

<213> B.fragilis

<400> 4613

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<210> 4614

<211> 858

<212> DNA

<213> B.fragilis

<400> 4614

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<211> 2889

<212> DNA

<213> B.fragilis

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<211> 978

<212> DNA

<213> B.fragilis

<400> 4624

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<211> 963

<212> DNA

<213> B.fragilis

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<211> 525

<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<211> 642

<212> DNA

<213> B.fragilis

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<210> 4629

<211> 210

<212> DNA

<213> B.fragilis

<400> 4629

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<211> 3648

<212> DNA

<213> B.fragilis

<400> 4630

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<211> 2187

<212> DNA

<213> B.fragilis

<400> 4631

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<210> 4632

<211> 2040

<212> DNA

<213> B.fragilis

<400> 4632

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ttggggcaat	attgtgccag	cgatgacgaa	gagggtgatag	ctgaagggct	agagaagggtg	180
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 <212> DNA
 <213> B.fragilis

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 atcatcactt atagttttat ttcaagatat ttttcaaggg tctttgctat acgtagtttg 240
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 <212> DNA
 <213> B.fragilis

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tttttagttc	atagtctata tctattttat attatttag 219

<210> 4638
 <211> 384
 <212> DNA
 <213> B.fragilis

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<210> 4639
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 <212> DNA
 <213> B.fragilis

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 <213> B.fragilis

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<213> B.fragilis

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<212> DNA
<213> B.fragilis

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<211> 183

<212> DNA

<213> B.fragilis

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<211> 2175

<212> DNA

<213> B.fragilis

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<211> 237

<212> DNA

<213> B.fragilis

<400> 4648

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ggcaaaagtt	ttagatacac	taaaaccgat	gcctgcaact	actgtcaccc	cggttagag	180
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<210> 4649

<211> 702

<212> DNA

<213> B.fragilis

<400> 4649

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<210> 4650

<211> 255

<212> DNA

<213> B.fragilis

<400> 4650

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acaacaccgg	ccatgcaccg	gaaatcattt	aaagagcaag	aaccggctat	tttttccatt	180
atcggttcg	ccgttgcccta	tattgtctgc	ctgattatca	accgatcat	caagacgaga	240
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<210> 4651

<211> 1347

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (1259)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4651

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<210> 4652

<211> 3210

<212> DNA

<213> B. fragilis

<400> 4652

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<210> 4653

<211> 198

<212> DNA

<213> B.fragilis

<400> 4653

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<210> 4654

<211> 1188

<212> DNA

<213> B.fragilis

<400> 4654

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<210> 4655

<211> 615

<212> DNA

<213> B.fragilis

<400> 4655

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<210> 4656

<211> 1794

<212> DNA

<213> B.fragilis

<400> 4656

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<210> 4657

<211> 597

<212> DNA

<213> B.fragilis

<400> 4657

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<210> 4658

<211> 891

<212> DNA

<213> B.fragilis

<400> 4658

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<210> 4659

<211> 600

<212> DNA

<213> B.fragilis

<400> 4659

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<210> 4660

<211> 1407

<212> DNA

<213> B.fragilis

<400> 4660

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<210> 4661

<211> 915

<212> DNA

<213> B.fragilis

<400> 4661

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<210> 4662
 <211> 228
 <212> DNA
 <213> B.fragilis

<400> 4662
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 aatggaaaaa acagtatggg aatacgttta aaagatttaa gttaaactggg atatagagat 180
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<210> 4663
 <211> 258
 <212> DNA
 <213> B.fragilis

<400> 4663
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 ccgacaggaa ggagcatgcc gcatccgaaa ccttcgatca cccgccagaa gatcagctct 180
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<210> 4664
 <211> 2598
 <212> DNA
 <213> B.fragilis

<400> 4664
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<211> 696

<212> DNA

<213> B.fragilis

<400> 4665

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<210> 4666

<211> 1071

<212> DNA

<213> B.fragilis

<400> 4666

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 <212> DNA
 <213> B.fragilis

<400> 4667
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 <211> 1335
 <212> DNA
 <213> B.fragilis

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<211> 1218
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 <211> 1800
 <212> DNA
 <213> B.fragilis

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<210> 4671

<211> 1872

<212> DNA

<213> B.fragilis

<400> 4671

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<210> 4672

<211> 429

<212> DNA

<213> B.fragilis

<400> 4672

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cccagtaaag	tgattttacga	tcgtgcccac	tctgccattg	ccgaggccgt	tgacagcgac	360
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<210> 4673
 <211> 360
 <212> DNA
 <213> B.fragilis

<400> 4673
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 acgttggagg ccgacgggtt ggtggaacgg aaagcatatg cggaaagtacc accgaggttg 240
 gaatattgcc tgacggaaat gggacatagt ttgattccac acgtcgaagc attggttggg 300
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<210> 4674
 <211> 759
 <212> DNA
 <213> B.fragilis

<400> 4674
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 tcaaatcatt cattaaaaaa acattttattt aaaatggcaa caagaattag attgcaaaga 240
 catggacgta aaagctacgc tttctactct atcgttattg cagacagcag agcaccacgt 300
 gatggtaaat ttacagagaa gattggtact tacaacccta acaccaatcc tgctacagta 360
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 gttcgcaca tcctttcacg tgaaggcggt tatatgaaga aacacctcct cggcgggtga 480
 gctaaaggcg catttgggtga agctgaagct gaagctaaat tcgaagcttg gaagaacaac 540
 aaacagtcag gtctgtctgc tctgaaagct aaagaagagg aagctaagaa agctgaagca 600
 aaagcacgtc tggaagctga aaagaaagta aacgaagtaa aagcaaaaagc attggctgaa 660
 aagaaagctg ctgaagaagc tgctaaggct gctgctgaag ctcccgcaga agaagctgct 720
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<210> 4675
 <211> 1344
 <212> DNA
 <213> B.fragilis

<220>
 <221> unsure
 <222> (110)
 <223> Identity of nucleotide sequences at the above locations are unknown.

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 tactactatg aagatcagga tcgtaatgcc cactcccaga ttgtctccct taatgcgcga 180
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 gaagaaatag ctcaaaccg aataataagt cagggtggtg tctgtcttcg cctccatgat 360
 ttcaggcgaa gccacagcac ttacataacc gctcgcttcc atattccgca aagcaatgtc 420
 gggacggcac ataaagttga tgaaatagct ggcagcttcc ggattaccgg catacttagg 480
 aatcaccag ccgtcatacc agatgttgct tccttcccga ggcaactacat agtccaggtc 540
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 gagccatgct ttatttttgg tcatcatctc tttaccgaag tctgcctccc aaccggctat 660
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 gttcatcaga tcctctactg tcaccttgcc tccggccaga tcacgggcat gtgcgtaaat 780
 gatggccgtc ccgtacgcat cgcggtaact gtctttcatc aatatcttgc cggcatattt 840
 ccgatcccaa aggcaactcc aactttcggc atccgcacatc ggaacaaaag ccttggtata 900

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cttataatat	gcctggaaat	cttccagcac	tccgtcaccg	atgtaatcgg	cccagttata	1260
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<210> 4676

<211> 465

<212> DNA

<213> B.fragilis

<400> 4676

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gatatgttcg	ctctatatga	tgaagacaag	ctcagggcgg	tttggtgtgg	tactaacgag	180
gggaaaggaa	tttacgaatt	aaagaatatc	gcaacttgct	cggatagcca	gcgtaagggg	240
tatggtaaaa	gcctgattga	atatctgttt	caccattatt	cagaccgatg	ctcggtcgat	300
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ccttcccatac	gtattaagaa	ttttttcacc	gaccattatg	atcatcctat	ttatgagaac	420
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<210> 4677

<211> 732

<212> DNA

<213> B.fragilis

<400> 4677

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ataagcacct	tggtgcatac	cgagaagctg	gatggagaga	ataattgttt	gagcagatat	180
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caacgctggg	agttgctgaa	aaacgatctg	ggagatattg	aactgttcgg	tgaaaatctg	300
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<210> 4678

<211> 1116

<212> DNA

<213> B.fragilis

<400> 4678

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gaagttccgg	aaacggttct	ggataagatg	ttaggtaggt	tgggaagttcc	tcagttgaca	1080
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<210> 4679

<211> 198

<212> DNA

<213> B.fragilis

<400> 4679

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cggttattat	tccctgtcct	acctgttggg	gtgatgtgga	aacggaggaa	gtgccacccc	180
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<210> 4680

<211> 186

<212> DNA

<213> B.fragilis

<400> 4680

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<210> 4681

<211> 1548

<212> DNA

<213> B.fragilis

<400> 4681

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<212> DNA

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<211> 354

<212> DNA

<213> B.fragilis

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<211> 636

<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<213> B.fragilis

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 gataaggtag cagccgaaga ttggggatat gttaccaaga aatgtaccga agccttagaa 660
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<210> 4697
 <211> 600
 <212> DNA
 <213> B.fragilis

<400> 4697
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 gacgaactga cagaaaacac caaatcagaa ctgaaacttt ttgccggtca ggctgtgaat 240
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 aaggcattgt tttccgtatc tcctgcagac ggttcatata aagtgaattt cggagaagag 540
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<210> 4698
 <211> 663
 <212> DNA
 <213> B.fragilis

<400> 4698
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<210> 4699

<211> 393

<212> DNA

<213> B.fragilis

<400> 4699

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gttttagtta	ccggatgtaa	tattaaaata	gagaacggaa	acaaacctgt	ctgtgaagca	180
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gaaccccata	tcttcaaatt	caagatgccg	gattcactgc	ccaccggaga	atatacgcta	300
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<210> 4700

<211> 2523

<212> DNA

<213> B.fragilis

<400> 4700

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<210> 4701

<211> 705

<212> DNA

<213> B.fragilis

<400> 4701

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gtcagtgaag	taaattgggg	agcactggcc	ggcgtcgggtg	gaataaccat	catcggcagt	660
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<210> 4702

<211> 240

<212> DNA

<213> B.fragilis

<400> 4702

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catcccatgg	aattgggtga	cgaattgact	tcggaaagcc	cgtacatgaa	gacaggcaag	120
aagatggctg	aagtgatgaa	acccgggata	tcgaaaggaa	ctccggttcc	tttcacatgt	180
tcctttttgca	caatggcagt	gacgatcagg	gccaggattc	ctatcgggat	gttgacataa	240

<210> 4703

<211> 1413

<212> DNA

<213> B.fragilis

<400> 4703

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gtaaagaaaag	gtgagttcgt	caccattctg	gggccttcgg	gatgtggcaa	gactactttg	180
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gaaatcacac	aaactcctcc	acacaaacgt	ccggtaaaca	cggtattcca	gaaatacgt	300
ctgttccccg	atctgaatgt	atatgataat	atcgctttttg	ggctgaaact	gaagaaaatg	360

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aatgtgtttg	tagatacgaa	cgacgtatgg	gacgatggcg	accgtgtagg	tatcaccatc	1380
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<210> 4704

<211> 615

<212> DNA

<213> B.fragilis

<400> 4704

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atggaagtga	agcgtgttaa	aagcgaagct	gccgatctgg	agaaaaggct	ggaaaaacaa	180
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aagggttcaga	taccggggta	tcaggatgct	ttgcgcaaga	tcaaacgatt	catggaagat	540
gaagaaaatt	tgtctaagtc	atcgcaaaag	attctgaagt	cacagcagga	aaaaaggaag	600
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<210> 4705

<211> 1320

<212> DNA

<213> B.fragilis

<400> 4705

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<210> 4706

<211> 1782

<212> DNA

<213> B.fragilis

<400> 4706

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atggtaaaag	atttattaac	ccccgattat	atcttcgaag	ccagttggga	agtgtgcaac	180
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<210> 4707

<211> 807

<212> DNA

<213> B.fragilis

<400> 4707

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<210> 4708

<211> 219

<212> DNA

<213> B.fragilis

<400> 4708

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ttaaactctgt	gtgatacata	catgttgctt	ttccgcattt	cggcggtatg	ggaggaaatg	180
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<210> 4709

<211> 402

<212> DNA

<213> B.fragilis

<400> 4709

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<210> 4710

<211> 2067

<212> DNA

<213> B.fragilis

<400> 4710

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<210> 4711

<211> 492

<212> DNA

<213> B.fragilis

<400> 4711

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<210> 4712

<211> 1623

<212> DNA

<213> B.fragilis

<400> 4712

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<210> 4713

<211> 198

<212> DNA

<213> B.fragilis

<400> 4713

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gtttcatatg	ttcttgatta	tgtattgatt	aatgatgtta	ttattgagat	catcggtatt	180
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<210> 4714

<211> 228

<212> DNA

<213> B.fragilis

<400> 4714

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ggtactgtgg	gtttgtggtt	tgagcaagcc	acacatatca	ttgcgcaggc	tgctcccaat	180
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<210> 4715

<211> 204

<212> DNA

<213> B.fragilis

<400> 4715

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<210> 4716

<211> 1560

<212> DNA

<213> B.fragilis

<400> 4716

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<210> 4717

<211> 2208

<212> DNA

<213> B.fragilis

<400> 4717

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<211> 195

<212> DNA
<213> B.fragilis

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 attttgtgtt actcagtggtc ctctgtggtg agtttcgaca cacgccctct attccatctg 180
 aaaagaaagt tctaa 195

<210> 4719
 <211> 267
 <212> DNA
 <213> B.fragilis

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<210> 4720
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 <212> DNA
 <213> B.fragilis

<400> 4720
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 <212> DNA
 <213> B.fragilis

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<210> 4722

<211> 1926
 <212> DNA
 <213> B.fragilis

<400> 4722

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 <212> DNA
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<400> 4723

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 <212> DNA
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<400> 4724

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ggactacccg	ccgacgatcc	tttctggagt	gcccctcctg	ccgaatggac	caacctgaaa	1140
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<212> DNA

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caggtacagg	gagacacccg	gcgggtggac	ttgccgcaca	cctggaatgc	acaagacgca	240
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cgccccgaat	ggaaaggtaa	acgtcttttt	cttcgtttcg	acggagtaaa	cagtatagcc	360
gatgtattta	ttaatcgcaa	gcatataggt	gagcaccgag	gcggatacgg	agccttcatc	420
ttcgaaatca	cggacttggg	gaaatatgga	gaaaaagaact	ctgtcctggg	acgcgcccaac	480
aatgggtgaac	agttagacat	catgccgctg	gtgggtgact	tcaattttta	tggaggaatc	540
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tcgccgggag	tttatctggg	acaggaggtc	gtcagcccg	aggaagcgaa	agtatgcgct	660
aaagttaaac	tatccaaccg	tgcagccgac	ggaactgcgg	aacttcaggt	cctggtaacg	720
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ccctttatgt	atcaggtcag	tatcagtcct	cacaaagacg	gcaaacaaat	cgacagtgtg	900
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ggcaaacacc	tgccgcttca	tggagtctgt	cgccatcagg	accgcgcaga	agtaggcaat	1020
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gccatccgcc	tggcacacta	ccctcaagct	acctatatgt	acgacctgat	ggataaacac	1140
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tactcaaccg	ttgtgtggaa	aaatgtcaaa	ctcacctcgg	gaggagaata	tcattcgtgt	2040
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<211> 1173

<212> DNA

<213> B.fragilis

<400> 4726

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atcaaaaatc	aacttttcac	attaggagag	acctggcaag	ttgccttatg	cgtttacgca	1080
tggaacatat	tgtttgctta	tctatgcttg	aagctatacg	atgaaccggt	acgcaaatat	1140
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<210> 4727

<211> 615

<212> DNA

<213> B.fragilis

<400> 4727

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<210> 4728

<211> 1821

<212> DNA

<213> B.fragilis

<400> 4728

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<211> 1410

<212> DNA

<213> B.fragilis

<400> 4729

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 <212> DNA
 <213> B.fragilis

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 <213> B.fragilis

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<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<400> 4736

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<211> 2583

<212> DNA

<213> B.fragilis

<400> 4737

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<210> 4738

<211> 2649

<212> DNA

<213> B.fragilis

<400> 4738

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<211> 819

<212> DNA

<213> B.fragilis

<400> 4739

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<210> 4740

<211> 1065

<212> DNA

<213> B.fragilis

<400> 4740

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<210> 4741

<211> 921

<212> DNA

<213> B.fragilis

<400> 4741

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<210> 4742

<211> 408

<212> DNA

<213> B.fragilis

<400> 4742

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<210> 4743

<211> 1545

<212> DNA

<213> B.fragilis

<400> 4743

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<210> 4744

<211> 1215

<212> DNA

<213> B.fragilis

<400> 4744

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gttatcattg	acaacatgat	gaacctggaa	cttctgttcg	aagcaaccaa	actgtccggt	600
gattccactt	tccataaagt	agcggtagca	catgccgacc	gtactctttc	cgagcatttc	660
cgtcctgatg	gaagttgcta	tcacgtagtg	gactacaata	tttcggacgg	ctccgtacgc	720
cataaacaaa	cagcacaagg	atatgctgat	gaatcggttt	ggtcacgcgg	gcaggcatgg	780
gccatctacg	gcttactat	ttgctatcgt	gaaacgaaag	accgcaaata	tctggatcag	840
gactgaaaa	cattcaatag	gatgaaaaat	gatccgcaca	tgcgcgaaga	tctgatacct	900
tactgggaca	tggacgcacc	caatataccc	gatgaacccc	gggacgtctc	ttccgcatcc	960
tgcacgcgtt	ctgccctgta	cgagatcagc	acatatgacg	tccccgatgc	cgcttcttac	1020
agggaaatag	cagaccgcac	catgcatagt	ctcgcatcac	ctgactatcg	ggccgcattg	1080
ggcactaacg	gcaattttat	cctgatgcat	agcgtaggca	gtattccgca	taatagttaa	1140
atcgagttac	ctctgaacta	tgcagactac	tactttcttg	aagccctgaa	gcgtagaaaa	1200
gatttagata	aataa					1215

<210> 4745

<211> 1425

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (1175)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4745

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atttcttacc	atctgaagct	gttggagcag	gatatatcta	tttggataga	tgactggcaa	180
atgcgaaaag	ttttgtttaa	tttgctttcg	aacgcattta	aacatgttcc	ggataaagga	240
gaaataagca	tattaacctc	taccacaccg	gatcagggtg	ttattgcagt	taaggattcc	300
gggaatggca	ttagtaaaga	agaacaggaa	cggatatttg	atcgttttta	tcaggcggac	360
aatcggaata	aagcgattca	tgttggcact	ggtatcggac	ttgcattaac	gaaaagtatc	420
attcagctac	atcatggtac	aattgaggtg	gaaagtgagt	taaatgaagg	aagctgtttt	480
attgtgaagt	tacctaaaac	ccgtgattgt	tttgaagg	atactgaagt	cgtttttctg	540
gaatctccgg	aaaaggaacc	tatggtacaa	gagaatacca	taccggatga	gaattttatg	600
aaaaaggatg	attctacatt	cgaaactccc	ttgatagatg	aacgggaagg	gaaacggaaa	660
gtattattgg	tagaagataa	tgtggagctt	ttgcaggtag	tcaaagaaat	attttcatca	720
ctttatcagg	tggtgacggc	tgctaattgg	gaggagggac	tgaaacaggc	ttttgcagaa	780
gttcccgaat	tgatagttag	tgatgttatg	atgccggtaa	tgacaggaac	ggagatgtgt	840
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gacactgtag	atcaaaatat	agaagggtta	cgccgtggag	cagacgatta	tatcaccaag	960
cctttcaatg	caaaaatctt	aataaccctg	tgcaataatt	tgattcgtaa	ccgcttggtg	1020
atgcaaagcc	gttttgccaa	agatcagatt	ttagaaatca	acctgttggc	agctaatacca	1080
atagataaag	gtttcttggg	tagagtgtat	aaggtggtag	ataaacatat	tgataatgag	1140
gattttgata	ttgggtatgt	atgtcaggaa	cttgnaatgg	ggcgaacatt	gttgacaccc	1200
aatttttaag	cattgacagg	gatgacaccc	aatgaattta	ttctaaatca	ccggttgaaa	1260
atagcatcgc	tgatgttaaa	gaacgaacct	tattttacagg	tagcagaaat	atccgataga	1320
ttagggtttcg	gttctccacg	ctatttcacg	cgttgtttta	aaaatcaata	taacgttact	1380
ccgatggaat	atcgcaaagg	agctaaacag	gaaaatctta	aatga		1425

<210> 4746

<211> 1113

<212> DNA

<213> B.fragilis

<400> 4746

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agccgcgaag	aagaaaaagc	agccgactat	ctgcaaaatt	atatacagggc	cgaaggcatg	180
accacggggc	gtaaaggaaa	caatatctgg	tgccctgagcc	ctatgttcga	cctgaaaaag	240
ccgacaatcc	tgctcaactc	ccatattgac	actgtaaagc	cgggtcaacgg	ttggcggaaa	300
gatccgttca	ctccacgcga	agagaatgga	aaactttatg	gattgggcag	caatgatgcc	360
ggtgccagtg	tagtaacact	cctacaggtg	tttctgcaac	tatgccgcaa	gcaacaaagt	420
tataacctta	tttatctggc	ttcctgcgaa	gaagaggtat	ccggaaaagg	cggtatcgaa	480
agtgtattac	cgggacttcc	ccccatcagt	tttgccgtag	taggagaacc	caccgaaatg	540
caacctgcc	ttgccgaaaa	aggcctgatg	gtgctcgatg	tcacagctac	cggaaaagca	600
ggacacgccg	cccgcaatga	aggtgacaat	gcgatataata	aagtactgga	cgatattgcc	660
tggttccgcg	actaccgctt	tgcaaaagaa	tcaccattac	tgggacctgt	caaaatgagt	720
gttacggtga	tcaatgccgg	tacgcagcac	aatgtcattc	ccgacctgtg	cagttttgta	780
gtagatgtgc	gtagcaacga	actgtactct	aacgaagagt	tgttttactga	aatacaaaag	840
catatctctt	gtaaaagtga	agcccggttc	ttccgcctca	actcttcacg	tatcgaagaa	900
agccaccctg	ttgtacagaa	agcaaaagaa	ctgggacgcg	tgccctttcgg	ctctcttact	960
ctctcggatc	aagctttaat	ggtgttcccc	tcagtcgaaga	taggccccgg	ccgttcttca	1020
cgttcgcata	cggccgatga	atatatcatg	attaaagaaa	tagaagaggc	attggaattg	1080
tatttgaaga	tactggacgg	actggaaatc	tga			1113

<210> 4747
 <211> 513
 <212> DNA
 <213> B.fragilis

<400> 4747
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 gaatttggca tttgcgatga tgaagacgaa gaaaaaaaga cccctgctta tgtagatagg 120
 aatcaaccgg ataaatgggt tgctgtggta aagaaccaa cgaatcaatc tatcaacttt 180
 acagcagtcg ataattgctg agagatgaat cgaagtgcg gaacaatgga ctttcgttgt 240
 gatgccatgt taaccaatga tgacaatatt gttttcgttg aactgaaagt acaagcagcc 300
 gattggatct ttcctgcggt ggacgaacaa ttacaaacta ccattgatca tttcaaggct 360
 aaccacgatt tatcgagata taaatataag cgtgcatttg tatgtaataa aaggcatcct 420
 aacttttagg tcagctataa ggacaaaatg acatcatctt cgatgaaaaa cggatttcgt 480
 ttgaatctgg ttagagaaat tattttttaag taa 513

<210> 4748
 <211> 897
 <212> DNA
 <213> B.fragilis

<400> 4748
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 ctccataaca ccttttttct tttttctact gcacttctcc caccttttcc acattataac 120
 attttcctct ttttcataaa aattttcttt actttccctc tcttttcttt tcccccttc 180
 actcttctac catctctttt cctttttctc cgtttttcct tcatttcttt ctcttatcc 240
 tttttcctcc tttttttcct ttctttccct catccccctc tccctttatt gcttttatct 300
 cttttttctc ttcttatctc aactcctctc ttcttttccc atttatctct cttttcttct 360
 ctctcctttc tttctatttc ctttctctc attctttcct tcctatcatc ttacttctc 420
 ttttctttcc cctttcttat cactttctct tcagaaaactc tcctcctttt ccttctcctt 480
 tttctttctt tctctctctc ccttaccttt tttttccact ctcacccctc tctcctctc 540
 cttttccatc tttgcctttt ctaccogtct ctttttcttt ccttaccttc tcttcttct 600
 cctctctta ttcttccact ctattcccct ctgctctgtc cccctcctcc tcttctctc 660
 tctctctatt tcacccctat tctctctctc cttttatctt tctttttcca tatcttccat 720
 cctccttttt cttctcctt aactttcccc tccctttccc ctttctttat tctccatctt 780
 tctctcttat tctctcccc tccacttctt ttttgttatc tcccccttc tttccccctc 840
 tcttctttcc catataatta ctctctcttt cttctctctc actctccact atctttc 897

<210> 4749
 <211> 210
 <212> DNA
 <213> B.fragilis

<400> 4749
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 aattatatcg tttctgctgt aatacagata aaaagcaata aaattcttct ttttacagac 120
 tcgtactttt ctttctccgg atcaactagg acggtagaag tgagaaatgg ctgggttctt 180
 tggcgaagaa ccgctctttt gagtcggtag 210

<210> 4750
 <211> 1218
 <212> DNA
 <213> B.fragilis

<400> 4750
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 attgtcttgc ccgatctgac tgcaggaagt actgaggag ttatcgactt tgccggagta 120
 acttccggca tgctgactca cgatggagga caggatacgg ataataaat agccgttcgg 180

gtaaaagcaa	atgaccgttg	gagtgatgcc	ggtatgtata	ccatccggac	tgtgaaacct	240
gtcttttaaag	tgggttatta	tccgggcaat	gtttggacga	aagagtttac	tttgaacaca	300
ctcactgccc	atagcgtgaa	aaccggcaat	ttagataagt	ttaccgatat	tgcttacgaa	360
tttagtgccc	atggtaatag	ttgggagcg	atgcccgag	atttgcgaaa	ggcagggctg	420
agtccgggaa	cctcttatta	tgtgagagcg	aagtataggg	gagaagtgcc	gggagagaaa	480
gtggaggtga	aaacgtatga	ggcgctatcc	atacccaatt	ctgattttaa	tgctggatat	540
gatgttacat	atcccaagag	tgagaatcca	ttatacacat	ttaaaggcga	ttggatttgt	600
acgcgaaatc	ctttgacctg	tcatactgat	ggagctaacg	cattctatgt	atctaaatca	660
agtacgcttc	cggtagttga	tggtagcggt	aatgttgctc	atatgatgac	attaggggtg	720
ggagcaggaa	acacttgctc	tttcggtaat	aaagattatt	ggcttgga	tagtggtatt	780
aatcatatca	gtgcgggtat	cgtttgcgta	ggagattatg	aggctgctgg	agatgtagtt	840
aatggtaaag	cggcttatat	tcgtccaacg	tctatgagtt	ttgtgtacaa	agctgctcca	900
tataaagatg	atgagtattt	gattgaagcc	tatttgga	atattacagg	agaagtagaa	960
accataattg	gcaaagctta	tttgaaatcc	ggtactgcat	attcatccta	tcaaactcaa	1020
accttgaatt	ttgagtataa	taatgaacat	agaaacttac	cgatctctca	tgtgaagatt	1080
atattttaagg	ccgttactaa	agaagatcgt	gatcacttgg	aagataagtt	taggggatgca	1140
aaagttccat	atggtgatgc	ttatatcata	ggttcacagt	tctggctcga	ttcatttact	1200
ttacattacg	acaaataa					1218

<210> 4751

<211> 741

<212> DNA

<213> B.fragilis

<400> 4751

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aatatgaaaa	cctatatata	cctctttctc	ctcttgcttg	ctacggcttc	ctgtagcgag	120
caaactgctc	cogatcattc	cgtcgggttat	ctccgtgtag	aaaatatcat	cctcagttgt	180
gataccgaaa	cgctgcccac	tactcgtgcc	gtcgatgccg	gacttaagct	tgagatctgg	240
caagggttctg	agtgtgtacg	tagttatgat	ccgggagcag	cggaactttc	caaaaggatc	300
gttcttccgg	ttggtgaata	taccctgaag	gcctttactc	ccgatcagac	cgaggcgccg	360
gacaatgaat	cgggtacacc	catctacagc	gtcgactatc	ctttcgctat	tgtatcggag	420
gatgttactc	tgatttcggg	gaaagcgccc	caaattaata	tccggggttg	cgttgagtat	480
tcggatgaat	ttatggcaaa	ctttacagac	ttctccgtta	ccgtaagtag	tcctacagga	540
cgtcaggcaa	gcctggcagg	taatgtgaca	gaccttttat	attttaaatgt	cccgaccggt	600
ggaaccattt	taagttatac	gcttaccgcc	accaatgccg	atggagaaaac	aatgacttcc	660
gaagcgcggt	ccatccttca	ggaatcggga	gcggaaactta	cttccggaaa	ttataaagtc	720
cggatcggcc	tggttcagta	a				741

<210> 4752

<211> 600

<212> DNA

<213> B.fragilis

<400> 4752

ttctgcaagc	atatacgtat	tccttatatt	ctatTTTTTaa	gcaaagtaat	attcattttta	60
ttcatcttat	tccatttttt	cgtatatattg	cttcgaacgg	aacatttttaa	cggaaatcgt	120
tgttcaaaaa	gcaaaaagaa	catggaaaca	gaagaagaaa	tacagaatgt	aaatgtccat	180
cacggacata	acataaggcg	caccgggatc	gagaaaaaca	tcaagcagga	cgcattggca	240
gcaactcgtaa	acatgacaca	accgaatgta	tccaaatagc	agaagatgcg	ggtgattgag	300
gatgaaatgc	taaataagatt	cgcaagggca	ctgaatgtgc	cggtagaata	tctgaaaacg	360
ctggaagagg	atgcaccttc	tgtagtattt	gagaatatca	caaataatgt	gcatgacaat	420
aaagacagct	cagtgcccat	tacgggttat	aaaggacaa	atgccaccac	caacagcttt	480
aatccgattg	ataaaatcac	cgaactctac	gagcgtcttc	tcgaagagaa	agatgaaaaa	540
tatgccgcgc	ttgaaaaacg	gattcaaggt	ctggaacagc	aaaataacag	cggaaagtaa	600

<210> 4753

<211> 258

<212> DNA

<213> B.fragilis

<400> 4753

gagatatatta	aaaaagaagt	aagcaaatta	ggaaaatgta	accgtctttc	aaggcaaagt	60
cttacttggt	ttgaggtaaa	tgcttacttg	ttttccggaa	aagcaaggct	ctaccgactc	120
aaaagagcgg	ttcttcgcca	aagaaaccag	ccattttctca	cttctaccgt	cctagttgat	180
ccggagaaag	aaaagtacga	gtctgtaaaa	agaagaattt	tattgctttt	tatctgtatt	240
acagcagaaa	cgatataa					258

<210> 4754

<211> 735

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (81), (211), (277), (388), (511), (522), (601), (607)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4754

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gtattgggtg	atgtctcgca	naaacaggat	ttgtctgctg	tcaagataac	aaagatgatt	120
ctgggaggca	gtaaggctac	catcactccc	gatccgtcca	ctgtaaccaa	tttcaggaga	180
ccgcaagagt	ttgttgtcaa	ccgtttcgat	naagaagagc	tatggacggt	cgatgtggta	240
cgtaccacat	cgacaggtag	cacgggaagt	gccgatntgt	gggctacaag	agccacattg	300
aacgggggta	tgaagcaagg	aaccactccc	cgtgtggaat	acaggaagaa	gtcgggaagt	360
acctggaccg	ttgtaccgga	aacagatntg	aaactggaaa	gtggtagaac	tttcagtacg	420
acacttaccg	gattgcaaga	tggtaccgat	tacgtttggc	gggtagtggt	cgaggaagtt	480
cctagtagcg	aatctggatt	tactaccgaa	nagatacagg	anatacctaa	cttaaacttc	540
gatacctggt	cgcagaatcc	cacaggaacc	tttaagaaga	ggttggtatcc	taatgccgat	600
ngctcanatt	ctttctgggc	aaccggaaat	gatggagtga	cctcttcact	ggcgggcagc	660
cgtgattcga	gtaccgcgcc	cggaagaaaa	gagcgttgtg	aacggaaagg	cggcttatat	720
ggtcacttta	tgtag					735

<210> 4755

<211> 552

<212> DNA

<213> B.fragilis

<400> 4755

cctcttcact	ggcgggcagc	cgtgattcga	gtaccgcgcc	cggaagaaaa	gagcgttgtg	60
aacggaagg	cggcttatat	ggtcacttta	tgtagtgtgc	cgctttagtg	ggtggctgcc	120
ggcaatctgt	ttatcggtga	ttataaaacg	aatgcccaaa	gtcccaagga	tagccccaag	180
tttggaaggt	cgtttacggg	ggcacgtccc	accggattga	aggggtggta	taaatatact	240
tctaaaccgg	tggtattatg	cggtaatccg	gataatctga	aaaatgatga	atgccatctc	300
tatctccgtc	tgtgggacga	ttaaagataac	gagatcggtt	acggagagtt	catcggaaaa	360
gagacgggtga	cccaatatac	tcagttccgg	ttcgatgtga	cttataccaa	taaaacggcg	420
aagcctgcca	agataacgat	tggtgccact	tcgagccatt	atggcgggtga	ctttaccggg	480
atgaagggtga	ccggttcggt	aggtgtaggc	agtgaactgt	gggtcgatga	atgtgaatta	540
ttgtatgaat	aa					552

<210> 4756

<211> 990

<212> DNA

<213> B.fragilis

<400> 4756

ataagaaaga	gagctatgca	taaatctgtt	ttatcttttag	tgtgttggtt	gttctttttc	60
ctgtcgtgtc	aggaagaaat	agaaacgatg	cctaacggca	gtttgaatat	cgtattgacg	120

gatgaagcgg	cggttacccg	gacttttgccg	gaggctttgt	cagatgaatt	gctggcaacag	180
ttcacgattg	agttgctgcg	tgacagagaa	gggacaatcg	tgcccgaata	caaagggtgca	240
ttgagagatt	tcggagatca	aagggtattc	aaggtaggca	gttatcaact	gaaggcttat	300
cttggagaga	atccgtcact	ggcattggat	gcaccctatt	attatggaga	agttcaagac	360
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ctggctactt	ttgagattgt	gaatcaagag	gtcttttgata	aacgtctgaa	agattattat	480
gtggaagtca	gcgagggggg	ggagtcgggt	acttggaaac	cgggagacgc	cacacatccc	540
tactttaaag	ccggaggccg	ggtgacaatg	gcattgatcg	gtacttctgt	agagacaggg	600
caggagggaa	ggtatgcttt	gaatccgatc	gagacagtga	aagcgggtgt	taagtataat	660
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gaacctatta	ctatcaacga	aaccgtaccc	gacagctggt	tgccgaaggc	taaggatttt	780
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agagccggca	ttgctgatac	agctttgcgt	ccgggttcagg	atgtggagtt	tgcttttaac	900
tttgccgata	agcatttgga	acatctgaat	aagacgtatc	tgctgtcgga	actttccgaa	960
gaaagatcgg	cgggctttgg	gctgctgtga				990

<210> 4757

<211> 198

<212> DNA

<213> B.fragilis

<400> 4757

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gaaaatgtta	taatgtggaa	aagggtggag	aagtgcagta	gaaaaaagaa	aaaagggtgt	120
atggagagga	aaggggcagt	gattatgaag	ggagtgaana	gagatacaaa	aagaagtagg	180
aagaagttaa	aagggtga					198

<210> 4758

<211> 402

<212> DNA

<213> B.fragilis

<400> 4758

ggaatacgt	tatgcttgca	gaatcaactg	ttttacgctt	attttacagc	tattgaaata	60
acaacaatac	tattacacac	tatgatcgga	ctactgacaa	ctaaagaact	tgatttcctc	120
accaaactgg	ctgaactttt	aaaagaatac	agtgcataa	tatcttacgg	tcattgtagc	180
gaactgcgt	ttcttggttg	tgctgggtgac	agcgaagatg	tggaaaaata	tcccattata	240
tttgaggaca	gctttgatga	aaatgagatt	tatgatctgt	tgcgcaaaaa	cagaaaacgg	300
atcgaggaga	ttatcgaaacg	tgaggtagct	gaggctgttc	ccgaaggaga	actatctcag	360
ccggacgatc	aggccgggatc	aatggcagac	catttttctact	aa		402

<210> 4759

<211> 1269

<212> DNA

<213> B.fragilis

<400> 4759

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tatacggttt	tgataggaaa	acagggatcg	ggaaaaagta	ccattgccaa	attatactcc	180
atgtttacgt	ggttggagaa	ggggctggca	cgccgtatca	ccagtgaana	atacattacc	240
caatattcac	gattccagaa	aatatattgt	gcctatcacc	gtttggaatc	atactttaag	300
agagaaacgg	ttatccgttt	ttatggatta	cattataact	tcttctatga	aaatgaaaag	360
tttcatgtcg	aagccaaagg	acttccggag	tcttataagg	tagcgaagggt	aatgtatgtt	420
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attaaaggca	gcgattacaa	gattcgtttg	tcggcagctt	ccagtgggta	tcagtctgtt	660
ttacctcttt	ctttaattac	cagattccta	tccgacctag	tgctggacaa	tgccaataaa	720

gaggacctga	gcattaaaga	gaagaagcag	attgaaaagg	aagtgaataa	agttatgaat	780
gataaatcac	ttacggatgg	ggtaaagttc	gctatgttgc	gcaatatctc	atcccggttc	840
aaatattcct	gcttttgtga	cattgtttga	gagatggaac	tgaatctcta	tccggagtc	900
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gtgcttacta	cgcatagtcc	ttatgtcatc	aattatctca	ctttagccgc	aaaagctttt	1020
ttgctgactc	aaaaagtatc	tgcaaatgaa	actttgcaag	agagaataaa	agaggtagtt	1080
cctgcggaca	gtacgataga	tccggcgcca	ctccggattt	acgaactgaa	agacggagga	1140
gtatttaggt	taagtactta	cgagggcttg	ccttctgacg	agaacttttt	gaatatccaa	1200
ttgggagtga	ctaatagaatt	gttcgatcag	ttacttgaaa	tagaacaaga	gtttgattat	1260
aaaaactaa						1269

<210> 4760

<211> 2046

<212> DNA

<213> B.fragilis

<400> 4760

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gccgtatata	tccgatgggc	aggtttttgta	gaaggaactt	cctggcaaaa	ggacaataaa	180
ctggatgtac	gcaatacgac	gaccttaacg	tatacaccta	taaaacagca	attgatcttc	240
aaaggtgact	ttacttatta	cagcagcaag	tctactcggc	taagagccga	gaaccagtac	300
aattactata	cgggaccgga	aataatggga	actcgttaata	cattcagttc	tctggaaaat	360
atggattata	acaggggaata	tatatcaagc	aataattactg	gtaactatat	tcctaaattt	420
tctaattccg	atcattacct	aaatgtactg	ttgggcttga	atcttgagca	ccaggattat	480
aaaacgatac	aaacttatcg	cctgtggtctg	attagtgcca	ctaagccgag	ttttgctctt	540
atggatgggtg	attattatac	tacgggacaa	ggcggaaatg	agtgggctta	tgtgggtttc	600
ctctatcggt	tgaactataa	ttataagagt	cgttacctgg	cagaagtaag	tggacgttat	660
gatgcctctt	ccaagtttcc	cgagaatcaa	cagtggggat	tcttcccttc	cggatcactg	720
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cctaagggta	acaatgcaga	gatgaaaacc	aagggtctggg	aactttcggt	catgtggcgt	1140
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ccttacagct	atatgctgaa	ggagcatacc	ggaaataatg	tatggacaga	agaaaaccaa	1680
aacactgatg	cttattggcc	ccgctaccgc	ggctatctgg	cgaatgggtc	tacaaaggcg	1740
ctgggtatcc	aggccaatga	ccgctattta	cagaatatag	cttatgtccg	tttgaagaat	1800
cttcagatag	attatacttt	taataagaag	ttttgcgata	aactgcactt	gcaggatttg	1860
aagattttacc	ttgctggtga	gaatctgttg	acatggacac	cgctgaacaa	gcataccaaa	1920
atgtatgacc	ccgaagggtat	cagtgcgggt	gatgcagatt	tccgttctac	tgccaataact	1980
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<210> 4761

<211> 573

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (140), (188)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4761

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cgcctcgcca	cccttgattn	tgtgcataaa	ggacagaacc	ttttatcac	aggttcttca	180
ggaacggnga	aaagctatct	ggcttgtgcg	cttggtcacg	aggcatgcaa	gaagggattc	240
cgcactttat	atgccaatgc	cccaaaactg	cttggcgcac	tgaaagtggc	caaggacaaa	300
ggtacacagg	aaacagaact	caagaagatc	gagcgctgtc	agttgctcat	tcttgacgac	360
ttgttccttg	tacctcttga	tgccaaggaa	cgtcccatac	tgctcgaaat	tattgaagac	420
aggcatgaac	gaaaatccat	catcataact	tcgcagtatc	catcgttcaa	ttggtatgac	480
atggtagggtg	acccgacaat	agcagatgcc	atccttgacc	gcatcattca	cacggctcat	540
accatagaat	tatacgggtga	aagcatgcgt	tag			573

<210> 4762

<211> 267

<212> DNA

<213> B.fragilis

<400> 4762

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ttggctctga	cctcttgtga	tagtTTTTTg	aattgtgagc	ccgagaacag	tttttcttcc	120
gaaggctttc	tggagtcgca	atcggattta	cggctttata	caaattggtt	tttacaaagt	180
ttcctgcccc	gcgaagaaac	aatagcttgg	ggtggcgacc	agtatgcgtc	ttcaccacgg	240
ggctggaagg	atcagcgcg	tgcaaaa				267

<210> 4763

<211> 393

<212> DNA

<213> B.fragilis

<400> 4763

tctcattcgc	gtacaaggag	catggaaagg	aaagtgtccg	cggtacaggt	cggcggatcg	60
ttgggtagaa	gccattatgt	gaacggtaag	ttcatagcaa	gtaacctggg	tatcatactt	120
acaccgacaa	ataatcccga	ataccccata	aacgtgcggt	tctatagcat	gtattcaaat	180
gccataagaa	agcagattgt	taacgagctt	gcgaacggaa	catccaagct	caccattccg	240
gtaaattgacc	tgatgaacta	ttatgtggag	tattttcaca	taagcaaaca	gaacgggctg	300
gttgaatatt	gcaataaggc	gattgttact	ttacaacaga	aattggataa	agaaaaagat	360
aattttaata	aaagaatcaa	cagtttgcta	tag			393

<210> 4764

<211> 624

<212> DNA

<213> B.fragilis

<400> 4764

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tgcgaaaaaa	aggaaattgc	cgacactttt	gaagcaaaca	tccggaaact	tcattggagat	120
tacaggctga	ctgatatcca	ttggccccgc	ctggcagttg	acctgaacca	tgacgggtata	180
gggcactggg	cgctattata	tgaattccag	aataagatcg	gctattatga	gcctgactat	240
accgccagcg	tatctgacgg	catgggtatt	tctcacgatg	aaacctgggc	aaggcctgca	300
accgattcca	atctgaccat	tccatgtccg	cgttatattg	tctcagaggg	gaaatgggta	360
tgctcaggaa	tccatggcat	ccaggttact	ttgcgtgctg	atgtggattc	cttcagttctg	420
cagtcaaatt	gcagcaggat	atctcccgca	tacaatgacc	gggatgacgt	tttcctggcc	480
aacatcaaag	atatcagcct	ggttgtcctg	tcatatgatg	ccgcgtcatt	cagaatcggc	540
gtgcattgca	cactccctta	cgaccgtcct	gacggaacac	aggagctgaa	cgagaattat	600
ttgtattacg	agtattcaag	gtag				624

<210> 4765
 <211> 240
 <212> DNA
 <213> B.fragilis

<400> 4765
 gatgaaccgg gcacttgggc caaaaaaggg aagggggggg gggggggcaa agttggacag 60
 gaaagctttt tgacatcctc caaatcccc atactggatt tctgcaaag gatggaggaa 120
 catcccgga caggcaatcc tttcaaggg accggccgct ctgcaattac cgcacggatg 180
 aattacaact cctcatatac cgatatcatg ctttacaaca atatggcttg tactgcctga 240

<210> 4766
 <211> 279
 <212> DNA
 <213> B.fragilis

<400> 4766
 aaagacaata tgacagaaca ggaagtcaga agatatctac ggaaaatgag cgagcaggac 60
 tcccagtctg ctttccgaga attctatgat atgacgtacg accgcctgtt ccgcattgct 120
 tactactata cccatcacga agaatgggtca caaagatcg tactcgatgt tttcatgaaa 180
 ctttgggaac tggaaaagcc actttacttt gcccttttg ggcaaataagg atttaccacc 240
 cttggccgcg atatgattga ccctttaaaa tcttggtga 279

<210> 4767
 <211> 471
 <212> DNA
 <213> B.fragilis

<400> 4767
 agacagaaga tggatcggtt agtaatgggt tgcagtgagc cgatggctgg tatacagctt 60
 atttgtaagg tcaagaggcg cctccggga ggtatcaata atgtatttaa gtattctacc 120
 gactggtata atgaattggt aagacgcgat gccgatcctt cactggataa agtgcggtgc 180
 aatgataagg gggaatatga atactttggt aatactaact ggctggatat catttataaa 240
 gatcagaact attccactga acataatgtc agcatttagt ggggaaatga acgtgcccg 300
 tattatgtgt caggacgtta ctacaatcag gatggcattt acaatgcccg agacgaaaag 360
 tatacgcatg ataatatccg ttcaaaagga gaaatacaaa tcaataaatc tcttttgttg 420
 gagaataata cggaatgtca tgattttccg ttccccacca gcctatgggtg a 471

<210> 4768
 <211> 900
 <212> DNA
 <213> B.fragilis

<400> 4768
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 gtgaaaagat gttttttaga atggagtttg gtaagcaggc gttttgccgt tgcccttacc 120
 tttgtattag agggagggat gttgcttgct gctaattctaa ttccagtga aggtgtagta 180
 aaagacacct caggagaacc gctggccggc gttacggtga gaatcaaaga cggaaagtcg 240
 ggaacaatca ctgatgtgaa cgggtatctt gtcttggtat tagaaaaagg aaaaaaactg 300
 ttgttgagct atatcggata ttcagaaaca gaagtactgg taaaagatga tcagcaaatg 360
 cagatcgtag ttaaggaaga tgtgcaacag ttgcaggag tggtggtcgt aggttacgg 420
 acggcaaaag aagtaaatct ggtgggtgct gtggaccaga ttgatagcaa gcggattgca 480
 gagcgcagca acagtaaacat ttcccggtcg ttgcaaggca tggtagcggg actgaacatt 540
 acattcagtg acggtaaacct ttccggtacg ccatccatca atcttcgtgg aacaggaagt 600
 attggtgcgg gtggttagtg ccttggtgtg ataaacggag tggagggtga tctcaactcg 660
 gtgaatccag cggatgtgga aagtgtatct gtattgaagg acgcttcttc tgctgctatc 720
 tatggtgcac gtggtgcttt ctgcgtgata ttggtaacta ctaagaacgc tactgccgga 780
 aagacgaaaa tcaattataa cggaagtttc tccatgcac agcgtacggg gaagacagaa 840

gatggatcgc ttagtaatgg ttgagcagtg accgatggct ggtatacagc ttattttgtaa 900

<210> 4769

<211> 1803

<212> DNA

<213> B.fragilis

<400> 4769

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gcagaggcaa	gagtgggtgt	gaacatgaat	accggttggg	cttttcacgc	gggagaagtt	120
gaaagcgggtg	ggcagcccgg	tttgatgat	tccggttggg	tagcagctac	catccctcat	180
attatgcaat	tagagaagaa	gcattgtgga	ggagatatta	tttatgatgg	agtcgggtgg	240
tatcgacgta	ctttcagagt	accgtcacaa	tacaaagaca	aacaaataaa	aatttcgttt	300
gaaggagtca	tgaatgcttg	tgaagtctat	ttgaacggac	agaagattag	tgctcatcgg	360
ggaggttatg	tcggttttgt	aacagatatt	actactcgga	taaactggga	ccgggacaat	420
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gatccgttac	atatcactca	tgctttagaa	gaggaagagg	tagctggagg	aggcatcttt	600
gttacttatc	cggtagtcgg	aaaagaaaaa	gccgtgaccc	atgttaaggc	tcatgtcaga	660
aacgaaggga	aacgaaagag	gaaagcccaa	cttcgtacgc	aattgataga	taagagtggg	720
aaaatagtgg	cctgtcaatt	gactcctttt	cggttgtcag	ccgtgagggc	cattcatctg	780
gagcaaaatc	tggaaatagt	acatccatcg	ttatggcatc	cctatgatcc	aaacttgtat	840
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tatctgcgtg	gagccaatcg	ccatcaagca	tttgacata	taggagatgc	agctgctaata	1020
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gctcattatc	cgcaggatcc	tgcatTTTTTg	gctgcttggtg	ataagtacgg	gttgctggta	1140
gtggagtgtg	tccccggatg	gcagtatttc	aagaacgatt	ctacattcat	ttcccgtctt	1200
tatgaagttg	ggaagcaaat	gattcgtcgg	gataggaatc	acccttccgt	catactatgg	1260
gaaacagcgc	ttaatgaaag	ccgctatccg	gcagagatag	cccggaatct	atatgctata	1320
gcacataccg	aatatcccgg	agatcagatg	tacactgccg	gcgactactt	tggaatgca	1380
gaccgggtag	actgtttcga	tgTTTTTTat	aaacaggtat	cccgttttcc	aaaagacggg	1440
gatgtgatga	gtaattatcc	ggaggaccag	atcgagtgta	aacctttgtt	ttgtcgtgag	1500
tgggggtgacg	gagtaggaga	aaaacctagg	gtaagcctga	tggaaaatga	agaagagcaa	1560
ttgaaacagt	gcagagggcg	tttttttgcaa	cttaacgggc	atggatatatt	cgactgggtgc	1620
atgcttgatg	ctaattcccag	aatgggagga	cattttttgt	ggagttataa	tgattatgca	1680
cgtggagcag	atcatgaaac	catgttttgt	gggatagtcg	atataaacag	aattcccagg	1740
tgcaggtact	atatgatgca	gagcattttt	cgtcaagaaa	tatccctccc	cgccaatata	1800
taa						1803

<210> 4770

<211> 1125

<212> DNA

<213> B.fragilis

<400> 4770

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tttgataaatt	tttatcgggg	caaacgtgtc	cttgtcaccg	gtcatacggg	ttttaaggt	120
agctggctct	ccatctgggt	gcatgaattg	ggggccgagg	tgattgggtg	ggctcaagac	180
ccttttacgg	ctcgagacaa	tttcgtactt	tccggtatcg	gcgagaaaat	taaggccgac	240
cttcgtgccg	atatccgcga	tggtgagcgt	ataaaggcta	tctttcagga	atatcaacct	300
gagattgttt	ttcatcttgc	tgcccaacct	ctggttcgct	tgagttatga	catccctggt	360
gaaacctacg	aaaccaatgt	aatgggaaca	atccatgttc	ttgaggcagt	ccgttctacg	420
gatagcgtga	aggtaggtgt	gatgattacc	acagataaat	gttacgagaa	taaggagcaa	480
atctggggct	atcgtgaaaa	cgagcctatg	ggcggttatg	acccttattc	cagtagcaag	540
ggagccgctg	agatttgctat	tgcttcatgg	cgtcgctctt	tctttcaccc	cgagcaatac	600
gataaacacg	gaaaatccat	cgccagtgtg	agagctggta	acgttatcgg	tggtggagac	660
tgggcttttag	accgtatcat	tccggactgc	atcaaggctt	tggaaatcggg	acggacaatc	720
gatatccgca	gcccgaaggc	tgtccgtccc	tggcagcatg	tgcttgaacc	gttgagcggg	780

tatatgctgc	tgcacaaaa	gatgtggagt	gacacctaga	gatactgtga	aggctggaac	840
ttcgggtccga	gagccgagtc	aatctctact	gtatgggatg	tggctacgaa	agtagtgaat	900
aattacggtt	ccggtgaact	tcgtgacctt	tctgatccgc	atgcgttgca	tgaagcgaag	960
ttgttgatgc	tggatatttc	gaaggcaaaa	ttccgttttag	gttgggaacc	gaagatgaat	1020
attgagcaga	cggttgagtt	gacggtggac	tggataaaaa	gataccggga	agaagaggta	1080
tatgatgttt	gtgttgaaca	gatagttaat	tttatacaga	aataa		1125

<210> 4771

<211> 894

<212> DNA

<213> B.fragilis

<400> 4771

ttatttataaa	caataactat	gaagtatttg	ataaccggcg	gatgcgggtt	tataggggagc	60
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cgttatggga	gtgggttccaa	tcttgagtgg	ttacgtacga	aaggtgactt	tacatatatt	180
ccttatgaca	cccgaatac	caacgatgtc	gaaacggtaa	taaaggaggt	acagccggat	240
tatatattttc	atttggcggg	tcaggttgcg	atgaccacct	ccatctccaa	tccccggttg	300
gactacgaaa	caaacgcttt	ggggacattc	aattttactg	atgctgtccg	taagtattct	360
ccggattctg	tgatcctgta	ttcttcgacg	aataagggtt	acggtgattt	tgagtatttg	420
catttcaggg	aagagtctac	ccgttatgtt	tgcaagaat	accctaattg	ctttcctgaa	480
tcgatttctt	tggattttca	ctctccttac	ggttggtcaa	aggggtgtgc	cgaccaatac	540
ctgctggact	tccatcgat	ctatggctta	aagacgattg	ttttccgcca	ttcttccatg	600
tacggcagta	atcagcacgc	tacctacgat	cagggatgga	ttggctgggt	ctgtcagaaa	660
gctctggaga	tcaagaatca	tactttgcaa	aaacctttta	caatctcggg	taccggtaaa	720
caggtccgtg	atgttcttca	tgttgaggat	gttgtgaatt	tgtattttac	agcaaaggac	780
attgacaaag	cttatggcga	ggtgtttaat	attggagggtg	gtatagaaaa	cagtctttct	840
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<210> 4772

<211> 921

<212> DNA

<213> B.fragilis

<400> 4772

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ggcaagaacc	tggcacaata	cctgtctcaa	aaatatcatg	tgcattgtatt	tgataagtat	120
atcgatcagc	ccttctttac	atcttatccc	tccattgaaa	caacggaact	ggattttggt	180
agtcaacgga	ttccacagga	tatgccatca	cctgattata	tcataaatct	tgcttcgggtg	240
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cctaactctc	cgtatgcctt	ggtcaagcaa	ttgacaacca	atacctccat	gatgctgtat	480
cggaattatg	gctttccgat	aatggttgtc	cgccccggta	atgtgtttgg	ccgcttcag	540
aataaggata	aattcatccc	ctatggtgtc	ggacaactga	gataccgggt	tcctttgaat	600
gtttccccct	gtgaacagaa	aagagatttt	atztatgtgg	atgacttctc	ttgtgcaata	660
gaatcccttt	tacagaacta	tttcaaattg	cttggggaga	ttgtgaacgt	gagtagcgga	720
gaaagtattt	ctttgaaaca	gattatcgag	cattgtaaag	catctcttca	ttcgtcatcg	780
gatgtgaatt	acggtgcttt	accctatcgg	gagaatgaag	ctatggatct	taaatgctcc	840
atagctaaac	tatcatcaat	aacaggatgc	aatatccatt	ttgataacga	aaaaagacta	900
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<210> 4773

<211> 261

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (33), (71)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4773

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ccgatacggg	gagaccaaca	attagcatac	cccccgatcc	gttttattgg	gacgcgtacc	180
tctgatacaa	ccccggccga	caaaaaggca	catcatacgc	gtcgagtcaa	tgcaacaatc	240
gagttacttg	atcgagctta	g				261

<210> 4774

<211> 246

<212> DNA

<213> B.fragilis

<400> 4774

gtcagcagga	aacgttcggt	cccgagatat	ttctgtacac	gccggatacg	cccgcccggt	60
tgggtgttca	gcccgtatc	aaccatcgag	actttccagc	actcggaatg	gttggtcaca	120
atgggtggtcg	tattgctgga	aaggcacacc	gccatttcgg	tggtattgcg	gaaaaaagtt	180
ggcgaaacac	tccttgatga	aaaatggggg	ctggccgcga	cattctccaa	aagggggggg	240
tggtga						246

<210> 4775

<211> 210

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (56)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4775

cccactttct	tttttggagc	gggctggata	accgaagaaa	gacgaggggt	gggacncacc	60
gccgatgtaa	taaacaatcg	ctctttgatt	tttttcccga	tcgatggaat	gttgatttgg	120
atttcgggaa	tctgcctccc	gtcccccatt	aagagagaga	ttgggggttt	tggtgctaag	180
ctcgatcaag	taactcgatt	gttgcatgta				210

<210> 4776

<211> 858

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (11), (50)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4776

ttcttcgggg	ngggaagccc	accaccaaag	aggctgcccc	aaatcattgn	ctgtcccag	60
aagcgaaata	agggaaaaaa	ggcccccccc	cgtgttactt	caactcggcc	cccccccaa	120
aatatgtggt	ggtgggttat	aaaaaccacc	aaaaagtitt	ctttcgggtga	aaacaccttc	180
tcgtgctcac	attttttcaa	aaaagcaatt	caccaccccc	cccttttgga	gaatgtcgcg	240
gccagacccc	attttttcac	aaggagtgtt	tcgccaactt	ttttccgcaa	taacaccgaa	300
atggcggtgt	gcctttccag	caatacgacc	accattgtga	acaaccattc	cgagtgtctg	360
aaagtctcga	tggttgatac	cgggctgaac	acccaaacgg	gcgggcgtat	ccggcgtgta	420
cagaaatatc	tcgggaacga	acgtttcctg	ctgacctatg	gtgacgggtg	caccgacctg	480
aacatcggtg	ataccctgaa	ggctcacgag	tcttcggact	gcctcctttc	ccttacggcc	540
tacaaacccg	gtggtaagtt	cggcgccctg	cagctcgatc	tcgatacgga	caaggctctc	600

tctttccagg	agaagcccga	cggggaccgt	aactggatca	atgcgggcta	ttttgtgtgt	660
gaacccgaag	tgttcgatta	tatccctgag	ggtgactcca	ccatctttga	gcggaacccc	720
ctcgagtcta	tagccaaggc	gggccggatg	catgctttcc	gtcatacggg	tttctggaaa	780
ccgatggata	ctctgagaga	caatacagaa	ttgaatgaaa	tgtgggatca	gggagtcgct	840
ccctggaaag	tgtggtaa					858

<210> 4777

<211> 2538

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (1253), (1893)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4777

tgcagacagc	caatccgctt	tcgacaatta	atccgtcgga	tatcgaatct	attgagatct	60
ttgaaagatg	cctctgccac	agccatctat	ggatcgcggtg	gcgcaaattg	tgtgggtattg	120
attactacca	aacgtgggtc	aaaaggaaaa	gataatatca	gcttcagtg	taatttcgga	180
atatcgaaag	tagtgaagaa	attggatatg	ttggatggat	atgcatatgc	gatgtatagg	240
aatgaagcag	cgcagatggt	taatgaatac	gagaatgcga	atgaagcaat	tccatatccg	300
ggtacttcca	aagtagatcc	cagtaccggt	gaatctgttt	attctcctgg	accggaggac	360
tatcggaatg	gtacatatcc	tagcgtaaat	tggcaggatg	aagtatttga	aacagcattt	420
tcccaggaat	acaatctgag	cgtgaacggt	tcgaatgata	aaggatatta	tgcaatctcc	480
ggtaatat	tggatcagag	tggtatcatt	cataactccg	gatacaaacg	ttattcattc	540
cgtgcgaact	tggctcgtaa	agtacatgaa	tggattgaaa	taggtacgaa	tatgagtttt	600
accaattcgc	tgaataaact	tgctaaaacg	aattctgtca	gtgacgggat	tattcgtggt	660
gctttatttt	atccggctac	cgctccgctg	gatgatgaaa	cgaataatgc	tcagttgaac	720
tggttctctt	ctaattcctt	tgtatataca	cgtgctgcta	aagatgaact	gacaacgaac	780
agtttctttt	cttcttcatt	tgtagagatc	actccgtaca	aagatttgaa	ggttcgtcag	840
aatgttgggt	tctcctacaa	tatcaatgaa	cgtgatgtgt	attacaacag	ggaaacagta	900
gaaggtaaag	atccgacaaa	cggatatgct	tccaaggcag	ataactgggt	gaaaaacctg	960
gtacttgaaa	cgatggcaac	ttataataag	acctttaata	ggaatcattc	gctaaatgta	1020
gtcgcagctt	tctcttatga	aagaggggat	tatggtaata	aggcaatggg	agctaccgga	1080
tttccgcaag	acttgacaga	agattttgat	atgagtgtct	ctgtgaatcc	tcagaaacccg	1140
actagcgggc	gaggaatgac	ttcttttggt	tccttttttg	gacgtgccaa	ctataatctg	1200
atgaataaat	atctggttac	tgctcttttc	cgccgagatg	gttccagtaa	gtntgcgcct	1260
ggtaataaat	ggtcgaactt	tgcttcaggg	gctattgcct	ggagagcatc	agaagaacag	1320
tttattaaag	atctgaatgt	gtttagttaac	ctgaaattcc	gtgcaagtta	tggacaaaca	1380
ggtaatcagg	cgattggggc	atatgctacc	cgtgactatc	tgactgtggc	caattatcca	1440
attaatgggt	cacttgccag	tggatttgcc	aatctgactt	ggagaggacc	ggccaatccg	1500
gacctgaagt	gggaaactac	cagccagtat	aatgtaggag	tggatatggg	tttcttccag	1560
aatagaatta	atctgactat	tgatctgtat	tataagaaaa	catctgattt	gttacagaat	1620
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gactttgatg	ctaataattc	ttttaatcgt	aataaaatca	gtgggtcttc	gggcgatcag	1800
tttgctcaag	gatggagtaa	ggctgataat	gtgttcttac	agcgtaacgg	aatgccgatc	1860
ggaaccattt	atggatttgt	ggaagacggc	ttntatgata	atatagttga	ggtgagagct	1920
gatccgttct	atgcgaaaga	gtcggaggct	gtatgtaaag	caatggtagg	tgagggtaaaa	1980
tataaggatt	ttgatggggg	agccggtatt	acgaatgccg	atcgtcagg	aattgggtgaa	2040
acgaatccgg	actttacgtt	tggatgact	cacaatttta	cttataagaa	tttctctttg	2100
agttttttcc	tgcaaggctg	tgtcggaggt	gatattttta	atgcaaactt	gcttgaagtg	2160
actatgagt	gtattggtaa	tattctcag	aatatattat	aatcccggtg	gacacccgaa	2220
aatcgggaga	atgccaaatg	gccgaaagct	tatgccggct	atgggagAAC	aatgaagtgt	2280
tccgaccgct	atgtagaaga	tggatcttat	ctgagaatga	agaacattaa	tctgggctat	2340
aagtttattt	ctccattcaa	aggaatcgaa	tctatcaatc	tgtttgcttc	cgtagtagaat	2400
gtatttacca	tttcgggata	tagttgggtat	gatccggatg	taaattcttt	cggaagtgat	2460
gcttcccgtc	gtgggtgtaga	cttatttctca	tatccaagca	gtcgcacctt	ctcatttggg	2520

ttacaatgta cattctga

2538

<210> 4778

<211> 795

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (21), (40), (45)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4778

atgacgcccc	tgcacccct	nccaatgata	ccatggaacn	tgcanaacat	gatgatgctt	60
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attaccgatg	ctaacgatgg	atcttcattg	atcggagcca	atgttctggt	taaaggtgcc	180
ggaaccgggt	ctattgcca	tgtggacggt	aagtatagtg	ttaacgtccc	aaatggtaag	240
aatgtattgg	tcttttcgtg	tgtagggtat	aaagaacatg	agatcacttt	aaaacccgga	300
caaaaagtgc	tcaatgtgat	catgaaagag	gatactgaac	tactggatga	agtagtagtt	360
ataggctatg	gctctatgaa	gaagagtgc	ttgactgggt	cggtcaccag	catcaaaagt	420
gaagatttaa	tgaaaacaaa	cccgattagt	attaatcagg	gactccaagg	gcgtattgca	480
ggtgtgcagg	ttaaccagaa	tgatgggtgc	cccggagccg	gggtaagtat	tcagattcgt	540
ggtgctaatt	cattctccac	ctctaccgaa	ccgctttata	tcgtggatgg	tattcctttt	600
accagtagtg	gaatgccggg	aacaggcaaa	gacggtatga	tgacagacag	caatccgctt	660
tcgacaatta	atccgtcggg	tatcgaatct	attgagatct	ttgaaagatg	cctctgccac	720
agccatctat	ggatcgcggtg	gcgcaaattg	tgtggtattg	attactacca	aacgtggtgc	780
aaaaggaaaa	gataa					795

<210> 4779

<211> 1260

<212> DNA

<213> B.fragilis

<400> 4779

caaaagtcac	ctacatcacc	ctgtgccctc	aagggagagt	ctctacttgc	ccagcagata	60
gctcttgaaa	tcagcaaact	ccttcgtcat	cggcaaactt	ttcttttcgc	ctttcataaa	120
agcccggagc	ttagcaggta	tttcgacctc	ggtaccaatg	atgctctcca	ccgtttgcag	180
gaatttggcc	ggatgggccc	tttcgaggaa	tacgcctgtc	tcacccggct	gcaagccttc	240
ctccaatgca	cggtaaccgc	atgctccatg	aggatcgagc	agataaaccg	tctgctgcca	300
gcacgctttc	acgctttcac	gaatctgtct	gtcgggtgtac	gtcgttcggg	atatctcggc	360
agcgatggct	gcatgcgaac	cgccatacag	gtcagacaca	cgggcaaagt	tgctcggtac	420
accacatcc	atcgcatgtg	caatgggtgg	aacggacgga	cggggattgt	actgtcctgt	480
ctgcaaata	tgatagaaaa	tatcattctt	attggtggcg	gcgataaaac	ggcggacggg	540
caagcccatc	tttttgccga	acaagcctgc	agtaatgtta	ccaaagtttc	cgctcggcac	600
acagatgacg	acattctctg	cccggccggc	cttcttcaat	tgcgcatagg	cataaaaata	660
atagaatgcc	tgcggcagga	aacgtgccac	gttgatagag	ttagccgagg	tcagcaacaa	720
ctgttcgttc	agttcctgat	ccataaaggc	tgctttcacc	agcgctggc	agtcacaaa	780
cgttcgctcc	acctccaggg	ctgtaattat	ccgccccagc	gtagtgaact	gtttttcctg	840
tatctcgctg	acttttccct	tcggatagag	cacatacaca	tgaataccct	ctacccccaa	900
aaagccattg	gctaccgcac	taccgggtatc	tccggaagtg	gcaacgagca	cattcacctg	960
tttcgcggcc	tctttccgga	tgaagtatcc	caacaaacgg	gccataaacc	gtccacctac	1020
atcttttaaa	gccaatgtag	gaccgtggaa	aagctccagg	gaatagatgt	tctccttcac	1080
cggcaccaac	gggacatcaa	aattcaacgt	atcataaacg	atctctttca	gcgtttccgc	1140
cggaacatct	tctccaaaga	aagcatctgc	caccgggtaa	gcgatttccc	ggaaagaaag	1200
attctctatc	tcgtcataaa	actcttgagg	caagggcttg	atggtcatgg	gcatgaatag	1260

<210> 4780

<211> 813

<212> DNA

<213> *B. fragilis*

<400> 4780

gtggctactc	cgcctaccgt	aacttcatca	agcaactctt	cacgtttttac	tcccatcaca	60
tccatcgaca	tttggaagc	aataaactcc	accccgttct	ccagagcctg	ctgccgcagg	120
gattccagtg	agtcgatgcc	tttccgggtg	atgatgtatc	gcatcatctt	tccaccata	180
cctcccatgc	tcatttttaga	aagtttcagt	ttcagcgaac	tggatgggag	cattgtacca	240
aacatcttgc	cgaaaatgtc	tttctccact	ttgggcttat	gcaatttctt	aatcacattc	300
agccccaga	aagtaaagaa	gatagttacc	ttttgtccgg	tggcagctgc	gccgttggcc	360
aggacgaaag	tggcaagtgc	cttgtccaag	tcgtcactga	acataatcag	agttttacct	420
ttgctgtcac	atgtcgtagt	caggttacaa	gcctgggggt	cgcttttctc	aatgactact	480
accgatttcc	ctccggtact	atccttggag	ataaatttat	ttccggtaga	gttgaccat	540
gcggcagcat	cccgcgagaa	tcccggtct	gtagccacaa	tttcaactct	ctcgccgga	600
acaagcgtat	ccattgtttt	cttcatcttt	aggaccgggc	ccggacattg	taatccgcag	660
gcatccaccc	ggattgtctt	aggatttgca	gccgtttag	tttggggtgc	ctcagctgtc	720
acagaagggt	tcgccgggct	gtcttgcgca	gaaggcgtgt	cgtctgtttc	ttcattttcg	780
tgcaagatga	tgggagcggt	agcagcacga	tag			813

<210> 4781

<211> 966

<212> DNA

<213> *B. fragilis*

<400> 4781

aaaaataacc	ctcgtatgat	gaagaataag	aaagtggagg	ccaatctgag	tatgggtggtt	60
tccaaaacct	ttagcggatt	gaacatgaat	gcgttgaaat	atctgcttcc	cgtatgggtc	120
agtccctttt	cgggagttac	cctccgggtc	gtgttgccg	ccattgcttt	ctggatcatc	180
gggatgtttg	tcaagcccga	aatttccacc	cggaaagaaa	aaatattcct	ttttctcctg	240
ggagccttgg	gcatctatgg	tttcatgttt	ctttatctga	tgggggttag	taaaacgact	300
ccggtctcga	gttccatttt	caccagtttg	cagcctatct	gggtgtttgt	gatcgccgtg	360
gtcttcttca	aggagaagat	cagtgcgatg	aagatagccg	gtatctccct	cggactcggc	420
ggagccattc	tttgattctt	ggctcagaag	agtgcgatc	tgggttcgga	cgccctgaca	480
ggcaatatgc	tctgcctgtt	gagttcgatc	gcctatgctg	tctatctggg	ggcaagtaac	540
cgaatactga	agtcggtcgg	aatgtttaca	gtattgaagt	atacctttgc	cggagcggct	600
ttttcaagca	tcgtcgtttc	ggctgtcacc	ggtttccatg	ctccggtatt	ttccggggccg	660
ttacactggg	ttccgctgtc	ggtgtcctc	tttgtcctga	tattccctac	ggttgtcagc	720
tacctgttgg	taccgatcgg	actgaaatat	ctgaagacta	ccgtgggtgg	catctatggg	780
tatttgatac	tgatcgtggc	aaccatcgtc	tctctactcg	taggacagga	ccgcttcagc	840
tggtcgcaga	ccattgccat	cggcatgatc	tgcgtcagtg	tctatctggg	cgaagtggcc	900
gagacgaagg	agaaaccagt	cagtaattca	gataaaccac	gtagtctccc	tccgcatgga	960
tcgtaa						966

<210> 4782

<211> 939

<212> DNA

<213> *B. fragilis*

<400> 4782

ttattaaata	cgtatgcaat	tatgccttta	aatttaccgg	ataagcttcc	tgcgatagaa	60
ctattaaag	aggagaatat	ctttgtgata	gataactccc	gcgcaacaca	acaagacatc	120
cgtccgctac	gaattgttat	cctcaacctg	atgccgttga	agattacgac	agaaacagac	180
ttgggtgcgtt	tactctcaaa	cactccgctt	cagggtggaaa	tttcttttat	gaagattaaa	240
agccacacct	cgaagaatac	accgatagag	cacatgaaaa	cattttatac	cgacttcgac	300
aagatgagag	aagacaggta	tgacggtatg	attatcactg	gtgcaccggg	agagcaaatg	360
gattttgagg	aagtgaacta	ttgggatgaa	ataacggaga	tattcgactg	ggcacgtacc	420
catgtcacct	ccacactcta	tatttggttg	gcagcacagg	cgggactgta	tcatcattac	480
ggtatcccca	agtatgcttt	ggataagaaa	atgttcggca	ttttcaagca	tcgcacgctg	540
cttccgctgc	atcccatctt	ccgtggcttc	gatgatgaat	tctatgtgcc	ccatagccgg	600
catacgggaag	tgcgaaagga	agatatactg	aaagtaccgg	aattgacatt	actttccgag	660

tcggatgatt	cgggggtata	tatggtggta	gcccgtagcg	gacgtgagtt	ttttgttacc	720
gggcactccg	agtactctcc	actgacactg	gatacggaat	atcgccggga	tgtttcgaaa	780
gggcttccca	tcgagattcc	ccgtaactat	tacgtgaatg	atgatccgga	caaaggaccg	840
ctggtgcgtt	ggcgcgga	tgccaacctg	ttgttctcca	attggctgaa	ctatttcgtc	900
tatcaggaga	ctccttataa	tattgaagat	atccgatga			939

<210> 4783

<211> 336

<212> DNA

<213> B.fragilis

<400> 4783

tcgctgaata	ccaaccccat	tccttgttgt	gcttttatag	aagacagtat	tttttctacc	60
ttctcattat	taaaatccaa	agaaactttt	tgtgaccatg	ccgaaacagt	gaagccaaat	120
aaaagaactc	ctaagagcaa	cagcattttc	gttctggttc	ttgttttcat	ttcatacagt	180
attaaattaa	ttatttttat	agtttataaa	aaggcctttc	tatataagct	aacacaccat	240
cgaaaagaag	gtatgagtgc	tatttttatt	tttctgcaaa	aaaagatgca	gggaaatgat	300
aggtcttgcc	cttatgtagt	tgtacatgcc	ttctaa			336

<210> 4784

<211> 444

<212> DNA

<213> B.fragilis

<400> 4784

ccggattggt	tgccgacttg	gggtggggca	ggacagggag	cacgtaaata	ctttaatttt	60
aagagtcatt	aaacggctca	ccactttgag	gcaggagtgg	cttataactgt	gcagtcaggaa	120
acatttcctt	tgtctgttgc	atggtatacc	atgtttgcag	ggcaagataa	gaatgcggag	180
ggaggccaga	attattcgct	ttatgttgaa	ttcaactatc	ccttcagagt	gagaatggtg	240
gatttaaacy	taacgtgtgg	aatggttcct	tatgccgctc	cccaatacaa	ttgtgatggg	300
tttgccgtaa	ccaatgttgc	tttgaaagga	actactcaga	tcagggttcac	tgataagttt	360
gctttgcctg	tatttgcaca	ggctgtttgg	aatccccgta	tggaagatgc	gcatttagtg	420
tttgggtatta	ctttaagacc	atga				444

<210> 4785

<211> 261

<212> DNA

<213> B.fragilis

<400> 4785

aatcttaaaa	caataacggt	tatggagaaa	tatcttattc	acagtaatga	gctgcacctg	60
atcgatcaag	aaagaatcca	ccaggcagta	gagcagatgg	tagagtcatt	ggatatggcc	120
gccggatcta	cattcagttt	tgacctttac	aaagtgggtg	aaacctattt	caaggatctg	180
gataaacgga	gagagataaa	ccatctgtta	ggcatcacag	acaacacgta	tgatcctaca	240
gaagatttcg	gagtgtgtta	a				261

<210> 4786

<211> 1929

<212> DNA

<213> B.fragilis

<400> 4786

ttgcatgaaa	ctattaagat	gctacgcata	aaaagattag	atattttttat	aataaagagt	60
tttttattac	tccttgcgg	tacatttttc	atctgcctct	tcattcttcat	gatgcagttt	120
ttgtggaagt	atgtagacga	attgggtggga	aaagggttgg	agatgagtgt	actggctcaa	180
ttcttctttt	attctgcgtt	gagtctggta	ccgatgtcac	tacccttggc	agtgttgttg	240
gcttctttga	taacgttttg	taatttttgt	gaacgttttg	agttgcttgc	catgaaagcg	300
gcggggattt	cattacttaa	aatcatgcgc	ccgcttattg	ttctcgtctt	tgccatttgt	360
tggtgtatcct	tttattttca	gaacgtcatc	ggtccgcagg	cgcaagccaa	gttgggaacc	420

ctgcttattt	cgatgaagca	gaaatctcct	gaagttgata	ttcccgaagg	agtttttctat	480
gatgaaatag	atgggttataa	cctgaaagta	caaaggaaag	accgtaaaac	gggtatgctt	540
tatgatgtga	tcattttatga	tttctccaac	aacttttgata	atgctcgcac	tatagttgct	600
gattcgggac	gttttgaaat	gaccgctgat	aaacagcatc	tctacttgca	tctgtacagc	660
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cgtgagtcct	tccgggaaaa	gcattcgcatt	attcagttcg	actcagattt	taatattggct	780
gatgccagca	tcattgagcaa	tcagtcctact	accaaagata	tgataaaaaat	acaggcatct	840
atcgatttcta	tgaccgtatt	ggccgatagt	atcggaagac	agtattttgt	tgaagcaagt	900
aagggaccct	atcgtagacg	agtcggattg	acgaaagaag	ataccttgaa	aatgcaggaa	960
gcgcagattc	gtgactataa	tgtagatagt	ctgtttgagg	ctgctacgtt	gatgaataag	1020
cagaagatta	tagcatcagc	tgttgggcgt	acagagaatc	tgtcgagtga	ctgggggattt	1080
aagagcttta	cgatgacca	gaatgacttc	agtataagga	aacataaaat	agaatggcac	1140
cggaagatca	cgattttctct	atcctgtctt	ttattctttt	tcattgggtgc	acctttggga	1200
gggattattc	gtaaaggtgg	attgggaatg	cctgttattg	tttccgtact	tacctttatt	1260
atttactata	taatagacaa	cacgggttat	aaaatggccc	gtgatggaaa	gtggattgtg	1320
tggatgggga	tgtggatgag	ttctgccatt	ctggctccgc	ttggatattt	cctgacttat	1380
aaatcgaata	aagactccgt	tgtattgaat	acggatgtat	atatctcttg	gttcaaaaga	1440
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<210> 4787

<211> 186

<212> DNA

<213> B.fragilis

<400> 4787

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<210> 4788

<211> 225

<212> DNA

<213> B.fragilis

<400> 4788

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<210> 4789

<211> 204

<212> DNA

<213> B.fragilis

<400> 4789

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<210> 4790
 <211> 1296
 <212> DNA
 <213> B.fragilis

<400> 4790
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<210> 4791
 <211> 2604
 <212> DNA
 <213> B.fragilis

<400> 4791
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<210> 4792

<211> 651

<212> DNA

<213> B.fragilis

<400> 4792

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<210> 4793

<211> 1170

<212> DNA

<213> B.fragilis

<400> 4793

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<210> 4794

<211> 576

<212> DNA

<213> B.fragilis

<400> 4794

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<210> 4795

<211> 195

<212> DNA

<213> B.fragilis

<400> 4795

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tttaaccggc	acggaaacct	gatagttccg	gtgccctgcc	tggttttgag	cgggcgcctc	180
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<210> 4796

<211> 189

<212> DNA

<213> B.fragilis

<400> 4796

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<210> 4797

<211> 1593

<212> DNA

<213> B.fragilis

<400> 4797

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<210> 4798

<211> 252

<212> DNA

<213> B.fragilis

<400> 4798

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<211> 1248

<212> DNA

<213> B.fragilis

<400> 4799

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1898

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<210> 4800

<211> 2064

<212> DNA

<213> B.fragilis

<400> 4800

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<212> DNA

<213> B.fragilis

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<213> B.fragilis
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<212> DNA

<213> B.fragilis

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<211> 1002

<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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attactccgt	atgatggttt	ggatgtggaa	acagatgatt	cttattgggc	atatcccaat	3420
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<210> 4806

<211> 669

<212> DNA

<213> B.fragilis

<400> 4806

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gacagtttga	ttctcaaaaa	aggcgagttg	gttttgaggt	attccaagac	gaatgaaata	360
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ggtaaattga	tcatcggaca	tgaaacacgt	tctttcactt	cagaagggga	ttccactgat	480
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atcaaaaatg	gaacacctgt	atatgtggaa	ttagaagtta	ttgatatggg	taaatcagac	600
gaaggctttg	ccgcgcgatta	tgccggtgtt	tatcatgtca	tgaaaatcaa	taaaataact	660
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<210> 4807

<211> 630

<212> DNA

<213> B.fragilis

<400> 4807

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aacttcaacg	ccaccggact	gagggccgat	gggctgggat	atccgctcag	tgacttcagt	540
aactggtggc	aggggtacgt	gaacgaagcg	acaggcaccg	aatttacgat	ccatgcggag	600
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<210> 4808

<211> 357

<212> DNA

<213> B.fragilis

<400> 4808

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ggtgaagtag	acaaacgccca	gatgtacttc	agcctcacag	aggcaggcaa	gaagcgttta	300
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<210> 4809

<211> 774

<212> DNA

<213> B.fragilis

<400> 4809

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<210> 4810

<211> 873

<213> B.fragilis

<400> 4810

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gaatatccga	tgatgattca	gggatacggc	gcgggtgccg	gagtgacggc	ggccggtgta	840
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<210> 4811

<211> 1344

<212> DNA

<213> B.fragilis

<400> 4811

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cgttctatta	ataggccggt	aaaagaactg	acttgtggta	tcttggaat	agccaatcat	180
aattatgaaa	agagattgga	tatgagagga	tacgaagagt	tcagggaagt	ttcggatagt	240
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<210> 4812

<211> 2397

<212> DNA

<213> B.fragilis

<400> 4812

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accggaatgtg	ccgaacaact	aatattttaa	ggtggaaaac	gaaatgatac	catacctttc	180

[illegible]

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<210> 4813

<211> 627

<212> DNA

<213> B.fragilis

<400> 4813

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<210> 4814

<211> 1011

<212> DNA

<213> B.fragilis

<400> 4814

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<210> 4815

<211> 1206

<212> DNA

<213> B.fragilis

<400> 4815

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<210> 4816

<211> 1584

<212> DNA

<213> B.fragilis

<400> 4816

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<210> 4817

<211> 639

<212> DNA

<213> B.fragilis

<400> 4817

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<210> 4818

<211> 582

<212> DNA

<213> B.fragilis

<400> 4818

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<210> 4819
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 <212> DNA
 <213> B.fragilis

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 <212> DNA
 <213> B.fragilis

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<210> 4821
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 <212> DNA
 <213> B.fragilis

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<210> 4822

<211> 1158

<212> DNA

<213> B. fragilis

<400> 4822

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<210> 4823

<211> 2511

<212> DNA

<213> B.fragilis

<400> 4823

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<210> 4824

<211> 1023

<212> DNA

<213> B. fragilis

<400> 4824

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<210> 4825

<211> 1536

<212> DNA

<213> B. fragilis

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<210> 4826

<211> 1356

<212> DNA

<213> B.fragilis

<400> 4826

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<210> 4827

<211> 1389

<212> DNA

<213> B.fragilis

<400> 4827

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<210> 4828

<211> 918
 <212> DNA
 <213> B.fragilis

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<210> 4829
 <211> 1470
 <212> DNA
 <213> B.fragilis

<400> 4829
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<210> 4830
 <211> 1485
 <212> DNA
 <213> B.fragilis

<400> 4830

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<210> 4831

<211> 1974

<212> DNA

<213> B.fragilis

<400> 4831

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<210> 4832

<211> 1404

<212> DNA

<213> B. fragilis

<400> 4832

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<210> 4833

<211> 1248

<212> DNA

<213> B. fragilis

<400> 4833

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<211> 2880

<212> DNA

<213> B.fragilis

<400> 4834

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<210> 4835

<211> 1836

<212> DNA

<213> B.fragilis

<400> 4835

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<210> 4836

<211> 2124

<212> DNA

<213> B.fragilis

<400> 4836

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<211> 363

<212> DNA

<213> B.fragilis

<400> 4837

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<210> 4838

<211> 246

<212> DNA

<213> B.fragilis

<400> 4838

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atgtatgtcc	ttctgaagca	attcaccacg	ctgaataata	caatcccaa	caacaaagat	180
aaaggctgcc	ttcctaattg	aaagcagcct	ttattttatt	cttttcagac	gtttggcaaa	240
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<210> 4839

<211> 375

<212> DNA

<213> B.fragilis

<400> 4839

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<211> 336

<212> DNA

<213> B.fragilis

<400> 4840

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gttgcgattc	gggcatattc	gttcattcgt	ttccactggc	ttgatgacga	aaatgaaagg	300
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<210> 4841

<211> 198

<212> DNA

<213> B.fragilis

<400> 4841

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<210> 4842

<211> 639

<212> DNA

<213> B.fragilis

<400> 4842

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<210> 4843

<211> 219

<212> DNA

<213> B.fragilis

<400> 4843

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gaatgttggg	gaggtactct	ccgttgggtt	aaaaccaaga	ggagtttacc	cagagaggta	180
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<210> 4844
 <211> 183
 <212> DNA
 <213> B.fragilis

<400> 4844
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<210> 4845
 <211> 276
 <212> DNA
 <213> B.fragilis

<400> 4845
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<210> 4846
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 <212> DNA
 <213> B.fragilis

<400> 4846
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<210> 4847
 <211> 1425
 <212> DNA
 <213> B.fragilis

<400> 4847
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<210> 4848

<211> 606

<212> DNA

<213> B.fragilis

<400> 4848

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<210> 4849

<211> 1074

<212> DNA

<213> B.fragilis

<400> 4849

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 <212> DNA
 <213> B.fragilis

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 <212> DNA
 <213> B.fragilis

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<400> 4852						
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<211> 183

<212> DNA

<213> B.fragilis

<400> 4853

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 <213> B.fragilis

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 <211> 1539
 <212> DNA
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<211> 288

<212> DNA

<213> B.fragilis

<400> 4857

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<210> 4858

<211> 657

<212> DNA

<213> B.fragilis

<400> 4858

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<212> DNA

<213> B.fragilis

<400> 4859

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<211> 261

<212> DNA

<213> B.fragilis

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<211> 465

<212> DNA

<213> B.fragilis

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<211> 429

<212> DNA

<213> B.fragilis

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<210> 4863

<211> 510

<212> DNA

<213> B.fragilis

<400> 4863

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<210> 4864

<211> 387

<212> DNA

<213> B.fragilis

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<210> 4865

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<212> DNA

<213> B.fragilis

<400> 4865

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<211> 999

<212> DNA

<213> B. fragilis

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gaactgttcg	agaaggacgg	cggtaggcac	cagaccatcc	gggtggagaa	cgccgacctc	960
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<210> 4867

<211> 366

<212> DNA

<213> B. fragilis

<400> 4867

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gatattggag	aacagcccgg	cggtacgctg	gaagccgagc	aatatcctat	cgaccacgcc	300
gatgtcgatg	ccccattccc	ggacggactg	gtaacagaac	caataaatat	tgatgactac	360
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<210> 4868

<211> 1296

<212> DNA

<213> B. fragilis

<400> 4868

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ggtcaagtac	tcggcagccg	atacctccgt	ggcatacacc	gccgactgca	ccccgttcag	180
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gatgggggac	gagatgatgt	cgtccacctc	ctgcgtgacg	acaatcgctc	cgccgaaata	420

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<210> 4869

<211> 978

<212> DNA

<213> B.fragilis

<400> 4869

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caagggtttg	cccgaacat	cagaggggacg	ctctataatg	gcggcaatgt	cttgatgtta	180
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<210> 4870

<211> 360

<212> DNA

<213> B.fragilis

<400> 4870

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aacaccggag	cgggtgcggg	tggcggtgga	aacgtcgggg	atgtccgccc	tcgggcgtgg	180
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ggagtcgctg	atgatgatcc	cgtgggcgga	acgctcgccc	gaggtctgcc	taatggcgaa	300
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<210> 4871

<211> 663

<212> DNA

<213> B.fragilis

<400> 4871

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gctgattacg	acacgttccg	gctgatagcc	gataaccgct	atatcccgaa	aggaaactat	660
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<210> 4872

<211> 1770

<212> DNA

<213> B.fragilis

<400> 4872

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gtgctggctg	atgatttatt	attaggaaag	cccgaacata	ttgatgattt	tgtgactccg	180
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cacgatattg	aagttttctc	ttctgtaact	gccaatgtag	ggaacaatga	cggaccttgg	360
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<210> 4873

<211> 810

<212> DNA

<213> B.fragilis

<400> 4873

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tataaggaag	cacagcccca	ccctgcattt	aaagattcca	ttgtcctcgt	aactccagtg	180

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ggaaaaataa	cccaacaaga	acgggaaaac	cgaattctac	taagacaagt	tatgaaaagt	720
gcaggatttc	gtgcacttcc	cagtgaatgg	tggcacttta	acctatgcag	ccgagacgaa	780
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<210> 4874

<211> 183

<212> DNA

<213> B.fragilis

<400> 4874

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ggacgcccgg	tacacgatcc	gctggttcct	cttcgacggg	gaaggcacgc	tcaaaactgga	180
tga						183

<210> 4875

<211> 1203

<212> DNA

<213> B.fragilis

<400> 4875

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<210> 4876

<211> 2211

<212> DNA

<213> B.fragilis

<400> 4876

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<210> 4877

<211> 2331

<212> DNA

<213> B.fragilis

<400> 4877

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<210> 4878

<211> 534

<212> DNA

<213> B. fragilis

<400> 4878

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caaggcggta	ttggagagca	cgctctcctt	cctcgacgtg	ctgcaacgga	tgatgctggg	480
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<210> 4879

<211> 2649

<212> DNA

<213> B. fragilis

<400> 4879

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gacaccatgc	agcagcagat	tgatgccaac	tactaccgca	tcaagagcga	ggttaagcag	2580
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aacggataa						2649

<210> 4880

<211> 234

<212> DNA

<213> B.fragilis

<400> 4880

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gaagacgata	gagaaacgag	ggagtatttt	ctgggaaaag	ggataagtgc	cggccgaaa	120
gggatagttg	cgattaaggc	aagtatgggg	gcagggaatt	ttaaaaagca	aggctgggag	180
tggaaagcagg	aggagtttac	tgttaaagac	caaaggacat	tgcttaaaaa	ctaa	234

<210> 4881

<211> 303

<212> DNA

<213> B.fragilis

<400> 4881

ccaatattcc	tcaactgctgc	ctcccgtagg	agtttggacc	gtgtctcagt	tccaatgtgg	60
gggaccttcc	tctcagaacc	cctatccatc	gaaggcttgg	tgggcccgtta	cctcaccaac	120
aacctaatgg	aacgcacccc	catacctttac	cggaaatcctt	taataatgaa	accatgcgga	180
atcattatgc	catcgggtat	taatctttct	ttcgaaaggc	tatccccgag	taaagggcag	240
gttgatatac	tgttactcac	ccgtgcgcgc	gtcgcagaca	aagaaagcaa	gctttcttcc	300
tga						303

<210> 4882

<211> 561

<212> DNA

<213> B.fragilis

<400> 4882

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gagaaactct	ttagagaggt	ggcgttcgat	acatttgtag	ccatcgagag	ttattgtatc	180
aaaaaaggct	accatacctt	tttgtcggga	atgtgcgagg	gcttcgacct	tatcgagca	240
gaggaagtct	tgaacctcaa	aaaggaatac	ccgcataacc	atttgaaatg	cggttctccc	300
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gtgggaggca	cgttctacat	cctcaaaccg	gcggtagagc	agaaaaagaa	gttcgcgaac	540
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<210> 4883

<211> 396

<212> DNA

<213> B.fragilis

<400> 4883

aattttgtaa	aacttaaaaa	aaacggaatc	aagatgagac	gattgaattt	aatcctgctg	60
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cggttggaag	agatgtgagg	cgagtgggtc	agcacgggag	gcaagccgcc	cttcaccctc	180
tgggaagagg	acggcaagta	ccgtgtaacg	gtcatgcaca	gaaaccacaa	ggcgagacgt	240
gaagcggaga	cctacctcgt	ccgggaaacg	gaagggggtg	tggtcatcga	gacgggcttc	300
gccgtgatga	tggactatga	ccgggagaaa	gaccacatcc	ggctgtcgcc	ggcgaggagag	360
tacaggagaa	agagtgcagg	aaccctaaaa	cagtaa			396

<210> 4884

<211> 465

<212> DNA

<213> B.fragilis

<400> 4884

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aaaagaatat	tatacttttt	ttctgtgatg	ctttgtatag	ttgccgtcac	aggttgccag	120
gatcgcgata	tcattgatgt	taaagatgga	gtttccttac	ctccggtgac	cgatttgaaa	180
tcgtcactga	cacctgataa	tgatgcgggt	ttggagtggg	aactaccttc	agcgattccg	240
gaagagatac	aacgtccttt	atccgtttat	gttcagggtt	acaaaggggc	agtgtgtggg	300
catcagattt	ctttggaagg	tgaacctact	tcgtgggaat	atacactgaa	agaacctgaa	360
tccaaatata	ggattgtggt	taagggtccg	gggatgttga	aagaaaagcc	ctatggacaa	420
tcagatgaaa	tatattcggt	gggacaaaac	gtttctataa	attga		465

<210> 4885

<211> 861

<212> DNA

<213> B.fragilis

<400> 4885

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aggcacgacc	gcacggcgga	ggtgtgccgt	gccgccgttg	aagaggacgg	ctggcagctg	120
gagaacgtgc	ccgaagagat	gaagacaccg	gaactgtgcc	ggaaggcgct	ggaaacggaa	180
gcgggattcg	ggaacgactt	ccaccggggg	ctggttcagc	atatcccttt	tgccgaggtg	240
tgcatggagg	tgctgaagga	gtgccgggag	aataaccggg	aagaactcta	cggggtggcg	300
gtggctatcc	gcccggaggt	gatgaatggc	gaaatggcgg	acttctgct	gccgctggac	360
ggcaggtgta	tcagcatcct	gcccgtgcac	ctgcacaaac	cggagcgggt	gcgggtggcg	420
gtggaaacgt	cggggatgtc	cgccgtcggg	cgtggcggag	tgccgaaaag	cctgctcacg	480
cccgatgtgt	atgtcagggt	cgccgcccac	agtcgggagt	cgctgatgat	gatcccgtgg	540
gcggaacgct	cgccggaggt	ctgcctaagt	gcgaagacgc	tgtaccggga	catagtgaag	600

aatcaccg	agttcgtg	ggagagcgtg	cataaccaag	acagcatcta	cacgctgaac	660
agcctgatg	aaagcctgac	gggggaaaag	ttcagctacc	ggcaaatagac	ggacttctac	720
aacgggaagc	cgctgaatgt	gaaacgggatg	gaaacgccgg	gcggcggtgca	gaaggacaag	780
tcggtgaagt	tcgacaagga	gacgggagggc	ttctccttct	ccgacatccg	gcaggagcga	840
aaacggggat	tgaagatgta	g				861

<210> 4886

<211> 636

<212> DNA

<213> B.fragilis

<400> 4886

aaaaccggaa	acatggaatt	taagagtttg	aaaaatatcg	aaacgagctt	caggcagata	60
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aagtcgtaca	gcttcgccga	ggcgagcgg	cagaagatct	acgtgctgga	caacggcaag	180
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ctctcgga	aggggtatta	caaccggata	atctcgggga	acatcaacca	gatgatagag	420
atagacagcc	tgcgggtgca	cttcgacaag	taccggtaca	gcgtgcggac	gttcgcccgg	480
cagatcatcc	tgcgggaaag	ctctgttacg	gagcgcagcc	ttgtgaccgg	ctgccgcctg	540
ctggatgcgg	tcaggagcga	caacaacccg	cagggtctta	tcacgagggg	gttcgagatc	600
acggagaaca	aggatttgca	gaccctcaaa	cgctga			636

<210> 4887

<211> 576

<212> DNA

<213> B.fragilis

<400> 4887

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ctggcggtga	gaggacagga	cacgaaaacg	accgctcggtg	tgcctctcca	ggcagaggtg	120
acgcatgacg	gactgtcaga	aaaggaatca	aaagcctggg	agatcggtct	cggcggttcg	180
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aaccggtggt	tttacctgga	tttgcaggga	agcgtcggtt	tgacgaaaaa	caacaaccgt	360
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cgctttactc	ccctgctcag	atcccaatgg	gttgaacctt	atctcagggg	aggtgtgaac	480
tatctgcata	aagactttgc	ttccgtatat	ggcggaacct	ttgaggatga	tccaaccggg	540
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<210> 4888

<211> 576

<212> DNA

<213> B.fragilis

<400> 4888

cagttatcga	atcatgaagc	ggattcccac	gccgacctgc	gtgtggaatt	tcccgcagtc	60
gccgccgaac	agcaccggtt	ggcgaccgtt	taccagcaag	acaatcttgt	ccgtcacgta	120
ggcgacagc	tccagcgtga	gcgaccccc	gtagatgaaa	ttgtcctcat	ccgtgagccg	180
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cagtccaggt	gcggcgaaga	acgtcttctt	ccggtcggaa	aggaaagttca	ggtaatatgcc	300
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cccggcgtgg	tagccgaagc	cgtcgccgtt	tttccagcgc	atgttggtccg	acagcccgcc	480
cgtgagctgt	atgccccctca	ttccgggcag	gcaccgttgg	gcgtgtgccc	ggttcacatg	540
caggcacacc	ccgaaaagca	ggataatgaa	cagtaa			576

<210> 4889

<211> 702
 <212> DNA
 <213> B.fragilis

<400> 4889
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 aagggcatcc tcaatctgtc cggcaggacg gatatttatt tcaaacgaaa atggcaagtt 120
 gtgtgctgcg gcaactcgaaa tgaatttcgt gcctcaccac caccttgccc cctcgatgtg 180
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 cagaccatgt ttcaacttaaa attttacagg atgatggaca atcagaagaa gtatgcgggc 300
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 aactacaacc aatgcgtgcg tgcgctcaaa tccaatttct cggagaagaa agccctcgct 600
 ttcctctaca agctggagcg gcacaccctc gaactggctg agttaagcaa gcggatttcc 660
 gcactggtgg aggagtcca gagcaatac cccgtccgat ga 702

<210> 4890
 <211> 222
 <212> DNA
 <213> B.fragilis

<220>
 <221> unsure
 <222> (201)
 <223> Identity of nucleotide sequences at the above locations are unknown.

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 ctccgattgc gaaggcagct cactggactg caactgacac tgatgctcga aagtgtggg 180
 tcttcaccgc ggggtggaag ngctccgtgt ataggttttc ta 222

<210> 4891
 <211> 330
 <212> DNA
 <213> B.fragilis

<400> 4891
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 gacgctcgaa agcaagttcc cgctgctggc ggtggagaac ggctgcgtcg tgagcaagg 120
 ggcgacgtg acggtcgctt tcagggtgga acttcggaa ctgttctccg ttacagggag 180
 cgagtacgag gcgatccact cggcttgga caaggcgggtg aagggtgctgc cggagtattc 240
 catcgtaac aagcaggact tcttcacga ggagaagtac cggccggaac cggacaggga 300
 cgacctgagc ttcctgagcc ggagctttga 330

<210> 4892
 <211> 837
 <212> DNA
 <213> B.fragilis

<400> 4892
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 atcacggtgt tgggtggcgg ctacctgcac taccgcttgg ggtgtccgct ggcggtgatc 180
 gactgcgact tcccgcagta cagcctgtac gagatgcggg aacgggacag cggggcggt 240
 ctggagaacg aatacctgaa acgggcggtc tacgaacaga tgcggcagcc gggcggtgcc 300
 gcctatccgg tgcgcaagtg ccgggtggag caagccccc acacggcaag ggagctggcg 360

gcggaaggct	gctacgacct	gctcttcttc	gacctgccgg	gcacgggtgaa	ctcggcgggc	420
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cgctccacgc	tgctggctcc	cgacaggcgg	atgctggcag	gcagcggcat	ccccgaactg	780
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<210> 4893

<211> 642

<212> DNA

<213> B.fragilis

<400> 4893

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ggtgcggcca	acgccaatg	ggtcgtacac	gaccccgcca	atctggcgca	gggcatcatc	120
aacacagcta	aggagatcgt	ggagacctcc	gccaccgcac	agcacacgct	ggacggcttc	180
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gagctggaaa	ccatctcggt	cgggtacgcc	aagctgttga	gcgagagtgc	ggacatcctg	420
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gctatcatcg	accagagcta	caagcggctg	ctggagtacc	gcaacctcgt	gcagtattat	540
acggacaaga	acatctcggt	gagctacctg	cgggcgaaga	agaaaaagga	cgccgaccgg	600
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<210> 4894

<211> 1080

<212> DNA

<213> B.fragilis

<400> 4894

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agaaagagac	gttcgggctc	tattacaccc	ggctgtcgga	cgagcagagc	agcttcaccg	180
tctgggtgga	ggactcggac	ggtcaggcgg	tcgagctgga	atacgacttc	aatgcggaca	240
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aagcggatgg	cggtaagtg	catcgagggtg	cccgatgggt	tcctgaaaga	ccgtgaggta	960
ctttcgaccg	gcagaaaagag	acgttcgcga	tgcgccctct	cagccagcgg	caggagcaga	1020
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<210> 4895

<211> 1050

<212> DNA

<213> B.fragilis

<400> 4895

agagcgggtt	gtcagcttgg	cggaggagta	tatgcggcgc	atgggcttcg	gcgaccagcc	60
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ctatatcgtc	tatcgccaca	acgacatcgg	gcgggagcac	ctgcacatcg	tttccgtccg	120
ggtggacgaa	accgggcggy	cgattttccga	cagctacgaa	cacgggagtt	cgatgaaggt	180
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gccatgcaga	ccgcagggca	tgaccggggcg	cagttcgagc	gggaactcat	gcggcaggga	660
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gccctcgtac	ccggcgggagc	gtccggtgac	cagcccgtac	cgccgcagcg	caaaaagaaa	1020
aagaggcgca	agtacggcag	gcaacaataa				1050

<210> 4896

<211> 681

<212> DNA

<213> B.fragilis

<400> 4896

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agcgtttcgt	gtcggggatg	cgggttttga	gcacggcag	cctcatgtcg	gcgactacct	180
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tctgtgcgat	cgtgcgcagg	atgcccgccg	agttcacctg	gcccggcagg	tcgaagaaga	420
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gttttcaggta	ttcgtttctc	agtaccgccc	ggctgtcccg	ttcccgcac	tcgtacaggc	600
tgtactgcgg	gaagtcgcag	tcgatcaccc	ccagcggaca	ccccaagcgg	tagtgcaggt	660
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<210> 4897

<211> 351

<212> DNA

<213> B.fragilis

<400> 4897

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ggaaatggaa	ctgccggaca	gcgagccgga	acgggaaccg	ttcagggact	attcgacaaa	180
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gttctacgag	gaaccgaagg	tggacgggga	aaaggaggag	ctgaaaaggc	aggtggagga	300
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<210> 4898

<211> 306

<212> DNA

<213> B.fragilis

<400> 4898

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tctgtcccat	gtacttggcg	gcaagctcgt	agctcttctc	catcagcgcc	acctgatcat	180

cgattccgcc	cgcttgcgct	tccctttctt	ccagcttggc	ggccaactcc	tccacctgcc	240
ttttcagctc	ctccttttcc	ccgtccacct	tcggttcctc	gtagaacgag	ccgagctgac	300
ggttga						306

<210> 4899

<211> 1791

<212> DNA

<213> B.fragilis

<400> 4899

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acgatggtag	cattggcaaa	cattcagccg	agcggtttca	acccacgcaa	gcgtttcgat	180
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caccagcgca	tcgaggaaaa	gaaagccgtc	ctattagtgc	aggaacgggc	aagggagcgc	1740
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<210> 4900

<211> 237

<212> DNA

<213> B.fragilis

<400> 4900

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ctcggtgagg	ccttgccggg	aattgaacgg	gaatcagaca	ggaatcaaac	aaaaattgaa	120
cggaagaccg	cgtaaacatt	gttaatgcag	ttggggagag	atttatttca	ggggcgga	180
gaacaaagct	ttggcttcga	aaagacttgt	tatttgga	taaaaggctt	gatttaa	237

<210> 4901

<211> 1374

<212> DNA

<213> B.fragilis

<400> 4901

tggaagaaca	gacccaagaa	aaagcaacgg	ccaacgcagc	acgtgacgg	ggcggatgcc	60
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ccaaccccg	agacgggaa	cggaaagaag	gaggacaagg	gcggcgggaa	aaaggagaag	120
aagacagcca	agccgctcac	gccgaaacag	ttgcagcaac	ggaagaagct	gatggtatat	180
ccgctgatgg	gcttgctgtt	cctcggctcg	atgtggctga	tattcgcacc	ttcggaggag	240
cgggacgtga	accgggacac	cgtgggggcg	ttcaacgccg	acatccccct	gccggagaat	300
gacgggatca	tggcgacaa	gcggaaagcc	tacgagcagg	cgcaggcgga	gaaacagcag	360
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gtggaaatgg	aactgccgga	cagcgagccg	gaacgggaac	cgttcaggga	ctattcggac	480
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tacagccagc	cgaggaacta	cggcttcaac	acggcggtag	gcagcgggta	cactatgggg	900
aagaacacga	tacgggctg	catccacgga	gatcagacga	ttatggacgg	acagacggtg	960
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atcacccgtg	ggctgatgca	ggcgggcagc	cagtaccttg	ccaagaagtt	ccgcacggta	1320
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<210> 4902

<211> 723

<212> DNA

<213> B. fragilis

<400> 4902

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gaaggaggaa	acggcatgat	actgaaatta	tcgctcaccg	tcctgtctgt	ctattacctc	180
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gagcgggaag	cccgtaggt	gctgccgtcc	gtgatgggat	cggacatctg	ggaggcgatg	660
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taa						723

<210> 4903

<211> 585

<212> DNA

<213> B. fragilis

<400> 4903

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gacaacatgc	gctggaaaaa	cggcgacggc	ttcggctacc	acgccgggat	agcggtgagc	180
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<210> 4904
 <211> 468
 <212> DNA
 <213> B.fragilis

<400> 4904
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 accgtctggg tggaggactc ggacgggtcag gcggtcgagc tggaaatacga cttcaatgcg 420
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<210> 4905
 <211> 306
 <212> DNA
 <213> B.fragilis

<400> 4905
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 tattttgaac cggggacgaa actgatttac gccatcgggt cgggtggtcgg cttgatcgga 180
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<210> 4906
 <211> 756
 <212> DNA
 <213> B.fragilis

<400> 4906
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 ttcaaggaac tcatgcgtga ctgtctggaa aacttcttcc gctcgtgcgc tgacgattgc 660
 gagtattgcg agagcgagga atatttcacg gacgagagcc acaagaataa ttgggagtag 720
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<210> 4907
 <211> 333
 <212> DNA
 <213> B.fragilis

<400> 4907
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acgctttacc gccagtcgga tctgctgcgt atgctggaag aaaattacgt ggacatgaga 300
 caaaagcgca aacgggggaa aagtccaaca taa 333

<210> 4908

<211> 1224

<212> DNA

<213> B.fragilis

<400> 4908

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 ctgcttcgac accttctacg agtacatgct gaacgattac cggaaggagc tggctgcaag 1140
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<210> 4909

<211> 405

<212> DNA

<213> B.fragilis

<400> 4909

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 gttcgagcag ttcttggaac cacagccgga tgttccgctt catgttgat tccgtccggt 180
 cgatgtacat caccgccatc gtcttcaagt ccttggggcga ccagcccagc tcgtcgagct 240
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 cctctctcag cgtctctctc tgcctccggt atcgggttcac gtcgaaggct tgtgattcga 360
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<210> 4910

<211> 1431

<212> DNA

<213> B.fragilis

<400> 4910

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 cttgcccggc aggtcttccg tgtccgagag ggtgtgcagg cagaggatgt cgtcgccgat 180
 gcgcatctcc tcggggttca actggatgtc cttcagcacc gtcgtgtcgt gctgcgagag 240
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ccccggttca	aaatacgagg	tgaccatctg	cgtggcttcg	gtgatacccg	cctgcccgtt	1380
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<210> 4911

<211> 861

<212> DNA

<213> B.fragilis

<400> 4911

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cgctttcctc	tacaagctgg	agcggcacac	cctcgaactg	gtcgagttaa	gcaagcggat	180
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gccgacgtgc	ttttcaccag	ccggattatc	gagccgcagg	gcgataaccc	ctacacgata	360
gggcatcttt	cccgtctcgt	cggtgactac	ctcacagcca	accgcaagac	cgagaagccc	420
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tcgcccgtcg	gttacgggga	cgacaatctc	aaggacagt	tggcaggagt	catccgcccg	780
ctcgcccggg	agtggcggtt	ccgtacattg	ggcgaatacc	gtgccgtgct	ttcccttacc	840
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<210> 4912

<211> 198

<212> DNA

<213> B.fragilis

<400> 4912

atcatggaag	gaaagaagtt	taaacacaag	tatctgccgt	acctcacttg	cgtggctcgtg	60
gcagccaccc	gaaaagggtg	caagggtttt	gaaacccaag	ttttgggcgg	gcgcaggaag	120
cccaaaacaa	agacagccta	ctactacgac	attgattttg	ataaagagcg	tggtttgtgg	180
caggaagaag	gcaagtaa					198

<210> 4913

<211> 210

<212> DNA

<213> B.fragilis

<400> 4913

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tcaatggaat	actttttctat	caatctcctg	tttgccgctt	ctgcctttag	tcttttcattg	180

attaatttta gttgtggcaa atctgattga

210

<210> 4914

<211> 2055

<212> DNA

<213> B. fragilis

<400> 4914

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gggaacgctc	cgacaatcat	ctggaaacac	gaattgaccg	taataactta	tttcttaaaa	120
gttatcagaa	ttatgcctct	tttccgtaat	tttgaaacct	ctaataaaca	tggctatgat	180
agaaacatac	tcaccttttt	aaatgaatat	gcggaaatat	ccgatccgca	atatgccatc	240
atgctgcgag	gtgcctgggg	atgcggcaaa	acgtttttta	tccgccaatg	gataaagcaa	300
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ggtttgacca	ctaccagca	aatcacagaa	caagtcaaca	aggaaatatc	cccgtggctg	420
tacagcaagg	gaatgaaact	tgccaagaat	atattaaaag	ccgcctcgaa	aatcgctttg	480
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ccggtcaaac	agcgtcttta	tagggatact	tcaatattcc	aagaggctga	tgccgataag	1800
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caatcagatt	tgccacaact	aaaattaatc	aatgaaagac	taaaggcaga	agcggcaaac	1980
aggagattga	tagaaaagta	ttccattgag	aagatcacga	acctgataga	tgaaattacc	2040
gcaaaaagtaa	aataa					2055

<210> 4915

<211> 399

<212> DNA

<213> B. fragilis

<400> 4915

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cttgttcaag	tcaccatcgt	ggaattggtt	cttttttcgc	tgggtgcataa	cgcattggcg	180
cttaaaaggg	gctggcggct	caaataccgc	tacgttctga	tgtcgggaaa	tgccgacgcc	240
aagacacttg	acaggctgga	gaactgcttc	gagtggaaca	gggacaggaa	gctaataatg	300
aagatcagga	aagagggtga	ggacttcgag	cgttggacgg	aaaagaaagt	ggcagaaatg	360
ctgcgtgcta	aaagacaaca	gccggggagt	gggaaataa			399

<210> 4916

<211> 507
 <212> DNA
 <213> B.fragilis

<400> 4916

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aagagagtta	gaatccactc	ttccaaggag	tcttacgaca	tcctcaagac	tttctacgag	180
gactgtatgc	agcaccacga	ggagtgtctg	gcatgtacc	tgaacggcgc	aggcagactg	240
ctgggcgttt	cgtgcgtctc	acgcagcggc	atgaacagta	cggtgggtga	catacgcatc	300
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tccggctcga	cgtggcgag	cacgccggac	aacaacctga	ccagccagtt	gaagaaaggc	420
tgcgaggcaa	tgggcataca	gcttttagac	cacatcatac	tgaccgagga	cgcctacctt	480
agctacatgg	acgaggggat	gcttttaa				507

<210> 4917
 <211> 1014
 <212> DNA
 <213> B.fragilis

<400> 4917

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tatcaggaca	tgatgccgct	ctgcgagaag	ctgacggggg	tagccaaggg	aattgccggg	120
ctgggtgcgc	tgttctacgt	agccgccaaag	gtgtggcagg	cgctcgcccg	tgccgaacct	180
atcgacgtgt	acccgctgct	ccgcccgttc	gccatcgggc	tgtgcatcct	cttcttcccc	240
accttcgtca	tgggcacgat	caacacgggtg	ctctcgcccg	tgggaaggga	ctgccacggg	300
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agggaggcgt	tccgccgtga	ccgggagaag	gcatactctg	cgagcaagga	ggacttcgac	420
aagaagctcg	acgagctggg	ctggctcgccc	aaggacttga	agacgatggc	ggtgatgtac	480
atcgaccgga	cgggaatacaa	catgaagcgg	aacatccggc	tgtgggtcca	agaactgctc	540
gaactgctgt	tccagtcggc	tgcgctgggtg	atcgacacga	tacggacgtt	cttctctgatc	600
gccctttcca	tccttggtcc	gatagcgttc	gccctctcgg	tctatgacgg	gttccagagc	660
acgctcacgc	agtggataac	gaggtacatc	tccatctaca	tgtggctgcc	cgtgagcgac	720
ctgttcagct	cggtgctggc	acgcatccaa	gtgctgatgc	tcacccgtga	catcgaggcg	780
atgagcgacc	cgaccttcac	ccgggacagc	tccaacacgg	tgtacatcat	ctttttaatc	840
atcgggatat	tgggtacttt	caccatcccc	acggctcgcca	actggatcat	catggcgggc	900
gggggtgagc	aagccaaccg	tgcgatgaac	caaaccgcaa	acaaggtcgg	caacgtcgcc	960
gcagcgggtg	cgggtgccgc	cgtgggggaac	atcgccggaa	aaatcatcaa	gtag	1014

<210> 4918
 <211> 1329
 <212> DNA
 <213> B.fragilis

<400> 4918

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gtgaagatct	ccattgatgg	ggatgacaaa	gtattgggaa	ccaaactatt	cgttacgccg	180
gatttatggg	agaatggtaa	ggcaaaaggc	aagtctgccg	aggcgacaga	gataaacggg	240
cagctcaaag	aagtcagtg	ccggcttacc	aaccactatc	accgcatcct	ccgggaagag	300
gattttgtca	ccgccgaaaa	gctgcgtaac	gcctttcttg	gtatcgggtg	gatggaaaac	360
tgtatcctga	aagatttcga	gaacatgaac	cgggaatttg	aggcgatggt	ggagaaaagga	420
cagcgtgcc	aatccactta	caacaagtac	ttggccgtgt	acaaccattt	tgccaccttc	480
ctttgggaga	agaagaaacg	aaccgatatg	gcttacaagg	aactgacaaa	ggagattatc	540
accgatttcg	acaagtacct	gcgcgtggaa	aagggtattga	gtgacaacac	tctttggata	600
tacaccatgc	cactgctcag	cctgacagac	aaggcatggc	ggcgtggtat	cgtccgttcc	660
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gaggaactgc	gcacctggc	taacgccgtg	ttcgtgaaaa	aacagaccaa	cctcgtagct	780
gacatgttcc	tcttcgggtg	cttcaccgga	cttagctaca	ttgatataaa	gacactcacc	840

catgacaaga	tccagcgc	at	ggacttcgac	ggcgaggatt	ggatcataac	ccgacgcacc	900
aagaccgtg	tgctcgagcaa	cgttcccctt	atggaaatag	ccaaggaact	gatagaaagg		960
tacaagggac	ttgccggagg	cgatttcgta	tttcccatgc	cctctaacgg	tacatgcaac		1020
aagcacctca	aacagattgc	caaagcctgc	ggcatcagca	aggagatcgg	attccacctg		1080
agcaggcaca	ccttcgccac	gaccgtctat	ctctgcaacg	gcggcacgat	agaggcgctc		1140
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aagatggtaa	gttcagattt	ccgtgcaatc	tccggcaacc	tcgccgccat	gcagcggagc		1260
gtactggaga	aaagggacag	gaagcaaggt	aggaaaaagg	tgacccggtc	cctccgggaa		1320
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<210> 4919

<211> 315

<212> DNA

<213> B.fragilis

<400> 4919

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ggtggcggat	gccccaaacc	cggagacggg	gaacggaaag	aaggaggaca	agggcggcgg	120
gaaaaaggag	aagaagacag	ccaagccgct	cacgccgaaa	cagttgcagc	aacggaagaa	180
gctgatggta	tatccgctga	tgggcttgct	gttcctcggc	tcgatgtggc	tgatattcgc	240
accttcggag	gagcgggacg	tgaaccggga	caccgtgggg	gcgttcaacg	ccgacatccc	300
cctgccggag	aatga					315

<210> 4920

<211> 339

<212> DNA

<213> B.fragilis

<400> 4920

atccatatat	ttgcagggaa	gtataatgaa	aatgtatca	gaacgatgga	aatagtaagt	60
attgaaaaga	agacctttga	ggagatgaag	gagcggttcg	gctgcttctc	acggcacgtg	120
aaggaacttt	gcgcccgtta	ccgcccgcgc	gggaagatga	actggatgga	cggggcggac	180
gtgtgcgaga	aactggggat	cagtaaaccg	acgttgcaga	cctaccgtga	ccggggactg	240
ctgccgtaca	gccagatcaa	ccataagatt	tactaccgga	cggaggacgt	ggaggtattc	300
gtggaatcca	tgagccggga	aataatggag	gacgagtga			339

<210> 4921

<211> 1005

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (840)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4921

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agttcgctcg	TTTTtcaagg	tgccgggcaat	gttcgggaatt	atgtagacca	cgggaaatat	180
ctgggcgatt	tgagtctgat	ttatgaagta	agagggaaga	gttatgccgt	ttctttggct	240
gatattactc	ctctgggtctt	gtcgaatact	ccggataaga	tacagatatt	ctggcagctt	300
ccttttcgatg	tgcgctcttta	ccaaactttt	actattaaag	gagaagaagt	agactgggag	360
attgatTTTT	ttaatcgag	tcattcatccg	gtgaaggtga	cggatatgtg	gttcgctctg	420
cctgtgggcg	ctttggatga	gtctattcag	gcacatcaga	acctgaaccg	tcatttctct	480
ctgaatggaa	atgcctcctt	cttttattgg	actccgctga	cagggcaagg	tgatattctg	540
ctgatgacta	tgcataaggg	aactgcgata	gaatatgcta	cacaagatgg	caagtactat	600
ctgcattcaa	tgaatgctgt	agatcgtaac	aatgatagct	ggagattacc	gtctacctca	660
aaaaacgtac	agccttacga	gcattacatg	acaggTTTT	acttcacact	cactggaaat	720

catgaagagg	taaaaacgaa	gatttatgat	aaacacggag	tggttgtgaa	agttgctccc	780
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gctgaattag	tggcagaata	tccagaggag	atacagataa	ccagtcttgg	acaaaaggaa	900
ggagataaat	atatctataa	gttccgtttc	tcccgtttgg	gagaaaacct	gattacggtt	960
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<210> 4922

<211> 930

<212> DNA

<213> B.fragilis

<400> 4922

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ggcatccgga	tgaagccgaa	tattcatatc	tttggaggac	ttgccaatca	accgggtaat	180
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cagactaacg	atccattatc	ccgcgcgtct	acggaaggat	tttataaaact	tggatgatg	420
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caagtggata	tgtacgtgaa	tggctggttcg	acttttgtgg	cagctgatga	ttcgccttat	540
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gccggtgact	ttacaattac	cgctgttgct	accaatgtag	gtgataaaga	ttataaagga	840
atagattata	gcgaggaaaag	aagtaactct	ttggatgact	atagtcataa	gagagcactt	900
agcagtgtga	aggtttcggg	aaaaccgtag				930

<210> 4923

<211> 522

<212> DNA

<213> B.fragilis

<400> 4923

gaagcagtgt	tttctatacc	ggtggatacg	acatttatga	ggcttcgtca	atgggagtg	60
tattgtcaga	aacgggctga	cagttgtctg	acagagaata	attatcaggg	agctttatct	120
tggctggatt	ccgctcgtat	ccaagtggaa	cattacggac	gtccttatta	tatattggca	180
cgcggggacg	tatattatc	catccatcaa	tatgattctg	cccgtcgtta	ttttagtatg	240
gcagtcacatt	ccattcatcc	acatattgct	atcgaagctt	ggaggaaact	tgcagaactg	300
gaacttatgg	aaggaaatga	gaagcaagg	ttctattcta	cgcagaaggc	agatgcactt	360
ttccgggtgg	agataggcca	tgtgcagagt	gataacagt	aagctctata	tcaggaagag	420
aggttgaaaa	acgagttaaa	ccaattgaag	attgccaaac	agaataggga	aattgccatg	480
tcttcaccac	ggggctggaa	ggatccgcga	tggcggtcac	cc		522

<210> 4924

<211> 1278

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (17)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4924

gcactttttt	ttcattntta	taccaaata	atgttgttta	ttccaagaaa	aattgtgtcc	60
tttgcaaaag	aaactaaaac	gccaaacact	atgtacggta	aaatgaaaga	acacctcagc	120
aatacgattg	ctgaaatcaa	agaagcaggc	ctctacaaag	aggaacgctt	aatcgaaagt	180

gcacaacaag	ctgctatcac	cgttaaaggc	aaagaagtgc	tgaatttctg	tgccaacaac	240
taccttgat	tgtctaacca	tccccgcctg	atcgaagggtg	caaagaagat	gatggaccgt	300
cgtggatcac	gtatgtcttc	tgtacgtttc	atctgcggaa	ctcaagatat	acataaggag	360
ctggaagccg	caatttcaga	ctatttcaag	accgaagaca	caattttgta	cgcagcctgc	420
tttgacgcta	acggcggtgt	attcgaaccg	ttgttcaccg	acgaagatgc	catcatctcc	480
gactcgctga	accacgcttc	catcatcgac	ggagtacgtc	tttgcaaggc	aaagcgctac	540
cgttatgcca	atgcagacat	ggccgacctg	gaacgttgcc	tgcaggaagc	acaggctcaa	600
cgtttccgca	tcatcgctac	cgacggtgta	ttctcaatgg	acggaaacgt	tgctccgatg	660
gacaaaatct	gtgacctggc	cgaaaaatac	gatgccctgg	tgatggtaga	cgaatctcac	720
tcagcgggtg	tggttgggtc	aaccggtcat	ggagtaagcg	aacagtacaa	cacttacgga	780
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gaaagcaacg	aaatccatga	caaactggta	gacaacgtaa	actacttccg	cgacaagatg	1020
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gatgccaaac	tgtcacagat	ctatgcagcc	cgcattgcagg	aagaagggtat	ctacgtaaca	1140
ggcttctact	atccggtagt	tccgaaagac	caggcacgta	tccgtgtaca	gatttcagcc	1200
ggtcacgaaa	aagaacacct	cgataaatgt	atcgctgcat	tcatcaaagt	aggtaaagaa	1260
ttaggtgtac	tgaagtaa					1278

<210> 4925

<211> 735

<212> DNA

<213> B.fragilis

<400> 4925

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aaaacaataa	tggcggggagt	caccgtcctg	gtgttggttcg	cttcattgcgg	caacagtaata	120
aagactgacg	ctgacccctt	tgcattctatt	acacattctgg	tagattcggc	aatgggtgaac	180
aaaaccgatt	ctattgacag	agaaaagact	tcggacgaac	ctaaaccgat	tgaggctgac	240
gaatcgtttg	acgactttat	ctacaacttt	gcttctgatg	acgctctgca	aaggcagcgc	300
gtggtgtttc	cgttgcccta	ctacaacgga	gaacgggctt	tgaataatcga	caggaagtac	360
tgggaagcatg	atgacttggt	tgccaaacaa	agttattata	ccttactctt	cgaccgggaa	420
gaggatatgg	atctggtagg	agacacttca	ctcacatccg	ttcagggtgga	atggattttc	480
gtgaaaaaac	gaatggtgaa	gaaatattat	tttgaaagaa	ttaaaggggc	gtggatgctc	540
gaagcaatca	atctgcgtcc	gattgaggaa	aacgagaacg	aagactttgt	tgaattcttc	600
ggtcattttg	cgacggatag	tattctccag	agccggcgaa	tccgcccaacc	gcttgtcttt	660
gtgacaaccg	atccggatga	tgacttctcg	ttactcgaaa	ctacacttga	cttgaaccaa	720
tggttttgccc	tttaa					735

<210> 4926

<211> 1050

<212> DNA

<213> B.fragilis

<400> 4926

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acggcatgtg	ccgctggctc	tcccgaagaa	gatattggagg	atcgggtacg	gattgatccc	120
gttgccgggtg	gatattatcc	ttcaatttct	ccttcggccc	agaccctgtg	ggcgacaccg	180
gatggcgaaa	cgttgaaaga	tagaccgatt	tttctgctgg	aagacgggag	tacgatcacg	240
ctggtgggtat	atgatgatgc	caagaatcta	ttggaggagt	attccaaagc	ttatctggta	300
cgtaacgccg	gtacgtcagg	cagcagtcctg	ctctatccct	gtgaggtaga	cgacaacgga	360
gcgtaatat	cttcaagcag	cactcctctt	tatatgaagg	cgggtactta	ttacttcaga	420
atcctgtcac	ctgccaaggc	tttaaactca	aagggatttg	tcaatatcgg	taacggagaa	480
tacctgcttg	cgaccgacga	cgggtatacg	caaacagcca	tgacggcagt	gaccattacg	540
aaaattgatg	aaggggggtac	attgaacaat	gtccagacac	tgtatctgcc	ccccatcatc	600
aaccagacag	cgcggtatgca	gtttactgtc	agggcggggtg	aaggggtgca	caccttggag	660
atgcttgccg	aaggaatcga	aatcagcggg	attcagcagc	cactggacaa	tacgaccagc	720
ttcgactggg	taaatggaga	tgtgctgcct	gtgaaagtgg	gggatcagag	tgcattcggt	780

cgtatcacac	aggccacccg	aaatgccgat	aacagcctgg	tggcgcatat	cggcgtattg	840
cccacagacg	cacgttctca	ctctatcagt	gtgttgctga	acctgaaggt	gaacggtaac	900
cctactcagt	atcagatggt	gctcaccggt	ttgtatctga	cagcagggcg	ttcgtacaac	960
tatacggcta	cggatgaagat	cagtaatggc	gtcactgtgc	tgacctggca	aaaccgttcg	1020
tggacggaga	atgtagtaat	ggataaataa				1050

<210> 4927

<211> 420

<212> DNA

<213> B.fragilis

<400> 4927

aaaaatacga	taacaatgga	agaacttaca	ctcacgacac	ccgcgctgct	attttcagcc	60
gtttcactta	ttcttttggc	atacaccaac	cgctttctct	cgtatgcca	attggtccga	120
attcttcgtg	accgtatat	ggaagatcct	tccgacatca	atgttgcca	aattgagaat	180
ctgcgcaaac	gcctcaacct	gaccgctatg	atgcaggtat	tcggcattgc	cagtctattc	240
ttctgcgtag	tcaccatggt	tcttatctac	atcggattgc	tcctgctctc	aatctatatc	300
ttcgggttgg	cattgctact	gctgatcgct	tctttggggg	tttccctccg	cgagatacag	360
atatccaccc	gtgccttgga	catctacctg	agtacgatgg	aaggcaagct	gaagcattaa	420

<210> 4928

<211> 930

<212> DNA

<213> B.fragilis

<400> 4928

aataaacaga	ttagagtaat	gaataataat	gatcccatga	aaagattcgg	atatatcggt	60
tttagtattt	gcctgtttgc	gctgagtgcc	tgcacatccc	atgaacagat	ggatcaggag	120
gagggaaatag	tgaaagtgtc	gatgggactt	actgccgctt	ctttcaccga	tgatgatgcg	180
acaacccgtg	cggagcagcc	gatggcacct	gattatgaaa	acctgattag	taatttgtgg	240
attctgcagt	ttgaccgtga	aggtatcctg	acaggcagcg	aacataaaagt	gctgcccaca	300
ccggtgctca	acaccacgct	tgaaggaatt	gcgttgagga	ccgggcgcgg	tacggtttgt	360
gtggtgggca	atctggcgga	tggagagatt	gccgcgtggc	ctgataactt	gagtggcttc	420
aagagtctgg	tgggtggatat	gggatggctg	aaagaacgga	atacggaccg	gaatgtgtgt	480
ctcttcggtt	attacgaagg	cgagattgct	gccggcacca	cagctgtgaa	tgtagtattg	540
ggacgtctgg	tatgcaggct	caatatagct	gtttcggcca	agacggcagg	gatattcagc	600
aacgtgagga	tccagttgca	gaatgcgcag	accaaaggct	atttgttccc	ttcggatgta	660
tatctgtcac	cgggaaggag	cgggaattat	acggaagagg	ttgtcatcgg	tgccgacaaa	720
gtattgggga	cagccccctt	ttaccgctac	tattatatgg	ctgagaatgt	gactgagggg	780
accgactccg	gtgaacgcac	ccggctccaa	atcaaagcaa	agaaaggagg	ggccgaatat	840
acaaaagcca	ttgacttggt	cagaagtgc	atccatgatt	attccctccg	ccgaaacaat	900
aactatacat	tcaacatcgt	tttagagtaa				930

<210> 4929

<211> 207

<212> DNA

<213> B.fragilis

<400> 4929

aattgcggct	tccagctcct	tatgtatatc	ttgagttccg	cagatgaaac	gtacagaaga	60
cataccgtat	ccacgacggt	ccatcatctt	ctttgcacct	tcgatcaggc	ggggatgggt	120
agacaatcca	aggtagtgtt	tggcacagaa	attcagcact	tctttgcctt	taacgggtgat	180
agcagcttgt	tgtgcacttt	cgattaa				207

<210> 4930

<211> 975

<212> DNA

<213> B.fragilis

<400> 4930

tacaccttat	tagtaaagat	aatgaaaaat	attttggtaa	ttggagcgac	cggacagatt	60
ggttcggagc	tcacgatgga	actacgtaaa	cgctacggaa	acacacatgt	agtagcaggt	120
tatattcacg	gggcagagcc	caaaggggaa	ttgaaagaat	caggtccgtc	ggctgtagtc	180
gatgtaacag	atcaggatat	gattgcctct	gtagtgaag	agtataatat	cgacacaatc	240
tacaacctcg	ccgccttgct	gtctgttgta	gccgagtcga	agccgaagct	ggcttggaaa	300
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tctgccgtta	aaggagagaa	gtttatctgt	ccgattccgg	aaggaaact	gatggatatg	660
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ctggtgcacc	gtaatgcttt	caacatcgct	tctatgagct	ttgcgcccga	gaccatttat	780
gctgctatca	agaaacatgt	tcctgacttt	gagatggaat	ataaggtaga	cccgtgaaa	840
caacgtatcg	ccaacagctg	gcccgcagct	atggatgatt	cttgcgccc	tgaggagtgg	900
ggctggaaac	cggcttacga	tttggaaaag	atgacagtgg	atatgcttga	aaaactaaga	960
gctaaattaa	aataa					975

<210> 4931

<211> 1770

<212> DNA

<213> B. fragilis

<400> 4931

gcagaagaat	cgtgctcggc	cttaatgttt	catttctaaaa	aatcacgtca	tattatgaaa	60
atcaaacata	tcgtatcttg	ctttttcgtt	tctctgatcg	gactttcggc	ttgctccata	120
gaggaactcc	cctacaacca	actgacagag	gacgagctgg	atggcagtta	tgaatctctg	180
ctgtctgcc	cccgtggtaa	ctatgccgta	tttaaacaga	cagcctcca	ccaggggtgg	240
cactatgcag	gcgagttggc	cagtataaac	gtttcgttga	gcggagtgtc	gtcggatgca	300
ttaatgtata	tctacaacta	ccagcgcac	acggacaact	accatatgtc	gaacatgtgg	360
ggatgggcct	accgctccat	catcaactcc	aacaagatac	ttgagaaagc	acaggaagga	420
gagagcaaag	agatggacca	gctgattggc	gaaaactact	tcctcagggg	atggctggaa	480
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gaagatggag	tccccagaaa	gtattaccgc	tggaaacgaa	tcatagaaga	aaacggaaac	1140
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accatttcag	ctgacgatcc	ggcagcaatc	gaattcatcc	ctcaacgtga	gatcgattca	1740
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<210> 4932

<211> 3183

<212> DNA

<213> B.fragilis

<400> 4932

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caatataaaa	tgaaaagaag	atattttattg	gctgggttag	ttgtatcagc	gcttttggga	180
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ggcttgattt	atgtatttct	tagtaatcgt	acctattccc	atgcttggtg	gaacaaatta	3120
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ttaa						3183

<210> 4933

<211> 729
 <212> DNA
 <213> B. fragilis

<400> 4933
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<210> 4934
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 <213> B. fragilis

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<210> 4935
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 <212> DNA
 <213> B. fragilis

<400> 4935
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<210> 4936
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 <212> DNA
 <213> B. fragilis

<400> 4936

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<210> 4937

<211> 1401

<212> DNA

<213> B. fragilis

<400> 4937

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<210> 4938

<211> 933

<212> DNA

<213> B.fragilis

<400> 4938

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gacggtgtag	aacacgtatt	aaaggtgctt	caactgaaat	gtaaattcac	ctatcaacgg	900
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<210> 4939

<211> 3258

<212> DNA

<213> B.fragilis

<400> 4939

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<211> 1032

<212> DNA

<213> B.fragilis

<400> 4940

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<211> 1107

<212> DNA

<213> B. fragilis

<400> 4941

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gaaaaaagcg	aagtagaaat	aaagaaagca	cgtgaagaat	tgcaaaactgc	aaaagatgca	480
ctggagatta	tcaaagaagg	tatcaccaaa	aacagcgctt	ccttcagcag	tacgctgatt	540
cgttcgacca	tcgacggatt	gattctggac	gtaccgatca	aagtaggtaa	ctcggtaatc	600
atgagtaata	cgtttaatatga	cggtacgact	attgccacag	tagccaatat	gaacgatctg	660
atcttcaaag	gcaagattga	cgaaacagaa	gtgggacgta	tccatgaagg	tatgccagtg	720
aaactgacta	tcggagcttt	gcaaaatctt	acattcgatg	ccgaactgga	atatatttct	780
ccgaaagggtg	tagaagagaa	cggagccaat	cagttcgaaa	ttaaagcggc	cgttcatgca	840
cgggactctg	tacaaatccg	ttccggatat	tccgccaatg	cagaaatcgt	gcttcaacgt	900
gcgcaaaaag	ttctggcagt	tcccgaaggc	attatcgaat	tcagtggcga	cagtagcttt	960
gtatgggttaa	tgaccgatag	tatacccgaa	cagaagtttg	aacgcccga	gatcaaaacc	1020
ggcatgagtg	acggtatcaa	actggaaatc	aaggaaggct	tgaccggaaa	ggaaaaagta	1080
agagcttcgg	aaaagaaaga	caaataa				1107

<210> 4942

<211> 1353

<212> DNA

<213> B. fragilis

<220>

<221> unsure

<222> (249)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4942

ggaaagtatg	aatcaccaac	aatgcataat	atgagaaata	aaatattgat	caacttattg	60
atactgaccg	gactgtcagc	ttacactgca	caggcacagg	aaggatggac	tttacgccgg	120
tgtatcgatt	atgccattga	gcataatata	aatgtgcaac	aaacggcaaa	ctcggccgaa	180
cagagtaaag	tggaggtgaa	taccgcaaaa	tgggcacgct	taccaaacct	tagcggcagtg	240

gcttcgcana	attggagttg	gggacgtaca	gcatcgccgg	tagataaacac	ctataacgat	300
atcaacagcg	gtagcagtag	cttcagcctg	ggtacaaata	ttccgttatt	caccggtctg	360
gaattaccga	accagtatgc	acttaccaaa	ctaaacctga	aagcagcaat	cgaagacctg	420
aataaaagcaa	aagaagatgt	ggcaatcaat	gtcacttccg	cttacctgca	agtgtctttt	480
aatcaagagt	taagcaaagt	ggcaciaagt	caggtaggac	tcagcaaaga	acaactgagc	540
cgcatacac	gattgcatga	agtaggaaaa	gcttctcccg	ccgaagttgc	cgaagccaaa	600
gctcgcgttg	cacaagatga	gatgagtgcg	gtacaggctg	acaacaatta	ccggttagct	660
ctactcgatt	taagtcaatt	gcttgaactt	ccgactccgg	agaacttctc	acttgccaca	720
ccggatacgg	agttggaatt	ctctcccctt	acttcaccgg	acgaaatcta	taaccaggcc	780
atgctctaca	aaccggggcat	caaagcagcc	gaatatcgtc	ttgaaggtag	cgaaaagaat	840
gtccgcatag	caaaaagcag	ttactatccg	caattgtcct	tctctgcagg	attaggtaca	900
aacttctata	cggtaaattg	taacgcgggt	tcaaattttg	gcaaccaa	gaagaacaac	960
ctgaataaat	atgccggatt	cagtctgaac	atacctttat	tcaatcgctt	ggccactcgc	1020
aaccgtgtac	gcaactgcgc	cctgcaacaa	accaatctgg	cattgcaact	ggacaatacc	1080
aagaaggat	tatataaaga	aatccaacaa	gcatggtaca	atgcatagc	tgccgagagc	1140
aagtttaagt	caagtgaagc	ggcagtagaa	gccagccaag	agtccttccg	cctgatgagt	1200
gaaaagttcg	acaatggaaa	agcgacctcg	gtcgagtaca	atgaatccaa	actaaatctg	1260
actaaagcat	tgtccgaccg	gattcaggcc	aaatatgact	atctgttccg	tacaaagatt	1320
ctggactttt	acaaaggaca	gcccattgag	ttaa			1353

<210> 4943

<211> 360

<212> DNA

<213> B.fragilis

<400> 4943

acaacaatgg	atttaattaa	aattgcagaa	gaagcattcg	ctaccggaaa	acagcaccgg	60
agcttcaaag	caggagacac	tgtaacagta	gcatatcgta	ttatcgaagg	taacaaagag	120
cgtgtacagt	tgtaccgagg	tgttgttatt	aaaattgcag	gtcacggaga	aaagaaacgt	180
tttactgtac	gtaaaatgtc	aggaaccgta	ggcgtagaaa	gaattttccc	gatcgaatca	240
ccggctatcg	acagcattga	agtgaacaag	gttggttaaag	tacgtcgcgc	taaactgtac	300
tacctgcgtg	ctcttaccgg	caaaaaagct	agaatcaaag	aaaaaagagt	taacggctaa	360

<210> 4944

<211> 349

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (329), (331), (333), (336)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4944

atccatagtt	tacatatattga	aatgggaaaa	tatcgcacga	aagggagcat	tgctctcatc	60
attacaggaa	gtgtcctgat	cctcgtactc	gcaggtttat	atctgggacg	taacggaatt	120
ctctgccgga	cggccgacaa	acgaatacta	tatgccgaac	aaaaatacgg	attatctatc	180
tgctatgagg	acctgcgaat	gaaaggatta	aacgaaatcg	aactgaaaaa	tctctctata	240
gttccccgca	accggggatac	ccttctcacc	ctgcatactt	tgaacatgca	cctcaacttt	300
tggaaattga	ttcgggggaag	tcttcaccng	nantgncaac	agcgctcat		349

<210> 4945

<211> 801

<212> DNA

<213> B.fragilis

<400> 4945

gtacttaagg	atatgaaaca	aaattacgca	aagattatgt	caggattcat	tctggcgggg	60
ttgctgacat	ttagttcttg	tcagtcgacg	catgagatgg	caaaaaccga	ttaccagatt	120

gccaaagtag	aggggaaggat	gattgacatt	gacgccaaat	gggacaccca	tcccgatgca	180
gatgccgtgg	caatattaaa	gccttataaa	gaaaaaatag	acaatatgat	gtatgaggtg	240
attggcagca	gcgagcagaa	gatggacaaa	ggacatcccc	agagcttgct	ttctaattctt	300
gtagcggaag	tattgcgta	ggctgcaacc	aaggtgcagg	acaagccggc	agacatggga	360
ctggtgaata	tgggaggatt	gcgtaatat	ttgcctgccg	gagatattac	ggtgggaacg	420
gtatatgaga	tattgccatt	cgaaaattcg	ctttgtgtaa	tgaagatgaa	aggaacacac	480
ctgaaagcat	tgctcacaag	cattgcatcg	ttgaaaggag	aaggggtgag	cggatcccg	540
atggaaatta	ccaaggatgg	aaaattactg	aatgctacgg	tgggcggcca	gccgatcgat	600
gacaataagc	tgtataccgt	ggcgacaatc	gattatctgg	ctgacggtaa	tggaaagtatg	660
gaggctttct	tgcaggctga	tgatcgtgtg	tgtcccagg	gagccacgtt	acgcgggctt	720
tttcttgatt	acgtgagaca	gcagactgct	gccggaaaga	agatcacttc	ggcactggat	780
ggcagaatca	ctgtgaaata	a				801

<210> 4946

<211> 2175

<212> DNA

<213> B. fragilis

<400> 4946

agtacaatgc	taaaaagaac	atztatatta	atcggccttg	tcctgagttt	ttgttcactg	60
ccagcgcaag	aactgattca	gattacgaca	cgcaacacag	cacttgtttt	caggggtgcc	120
aatcaatcac	taagacaagt	ttattatggc	ccacgcctgg	cagacaccga	tgtattacag	180
aaacagggca	ataactttcc	ggcatattcg	acttatggaa	tgggagaaca	aaacgaagtg	240
gcccttcatt	cagtacatgc	agacggtaat	acctctacac	tactgaactt	tgaaaacgtg	300
aaacaagagt	ctccggaacc	cggcataaca	ctgactacga	tttactgaa	agaccgccta	360
tatccttttc	aagtgaact	tttctataag	gcatacgaag	agagcgacct	tatagaacaa	420
tggactatat	atcagcatac	tgaaaagaaa	cggtaaacac	tttaccagtt	tgcttcgca	480
cagctctcct	ttaaatcttc	ctcctaccga	ctcactcact	ttgccggtga	ctgggccgga	540
gaatgcaaca	tgagtgaagt	agaactgaca	gaaggcatca	aagtgataga	ttccaaatta	600
ggaacccgtg	ccacattctt	tgctcatccc	atgtgtctgc	tatccctgaa	cggacggatg	660
actgaagaca	atggagaagt	gatagggatg	gctctggcat	ggcctgcca	ctttaagttg	720
gaatttgaaa	aaaacaacaa	tcaggaactc	cgtgtacttg	ccggaatgaa	tccgtacgca	780
tcacactaca	aacttaaaaa	aggcgatgta	ttccaaactc	cttcgttcct	ctacacatac	840
agtacaaaag	gaaacggaca	ggtcagtcgt	aatttccacc	gttgggcacg	taaatatggt	900
ttacgccacg	gagaaaattc	acgttatacc	ctgatgaaca	actgggaagc	cacttacttc	960
aactttaacg	aacccaaact	gaaatcaatt	atagaagatg	ctgcagggat	gggcttcgaa	1020
ctcttcctgc	tggacgacgg	atggtttgga	cagaaacatc	cccgaacaa	tgatgacgca	1080
ggacttggcg	actgggtggt	aaacaaagaa	aaacttccca	acggactggg	atggctggta	1140
aaacaatgta	cggataatga	tatcaagttc	ggtatctggg	tggaaactga	aatggtaaac	1200
ccccaaagtg	aactattcga	aaaacatcct	gactgggtaa	tccagcaacc	gggacgtgaa	1260
catattctct	ttcgccggca	actggtaactc	gacctgtcga	atcccgaagt	acaagagttt	1320
gtatataaga	gtgtacacga	cattctgaaa	gataaccctc	agatagcttt	tgtgaaatgg	1380
gactgtaacc	gtgctgtaac	caacccgga	tccacttatt	tacctgccga	cgaacagtca	1440
cacatatgga	tcgaatacgg	acggggatta	ctgaatgttt	ttaagaaagt	acgcgattca	1500
catcccgacg	tacactttat	gctttgctct	ggtggaggag	gccgtctgga	ttacggttca	1560
ctgcgctact	tcgaggaata	ctggcccagc	gataataccg	atgccttgca	acgtatcctt	1620
attcaatggg	gcaattcaca	gttctttccc	tcgatagcaa	tgtgttgcca	tgtttctgcc	1680
agtccgaatc	atcagaccgg	gcgcactact	ccactgaaat	tccgctttga	cgtagctatg	1740
cagggagctt	tgggaatgga	tttacaaccg	tccaccatga	atgaaaaaga	agtaatcttt	1800
gccaaagagg	ctatcaagac	ttacgaaagt	atccgtaaca	tagtggttac	aggcgacctg	1860
taccgtatct	tatctcctta	cgaaggtaac	cgcacctcca	tgatgtatgt	attgccggac	1920
aagagtcgtg	ccgtattcta	tgcttaccaa	ttaaaatcac	atatcgggtga	agttagtgtc	1980
ccgatgcgtt	tcaaaggtct	gagtcctgac	aagaaataca	acgtgaaaga	attgaacatc	2040
tatccgggaa	gccgtgctgc	aacagggtca	gccaacggac	aatctttcag	tggcgatttc	2100
ctgatgaatc	aaggcttgcc	tattggttta	tccgggtgatt	acagtagcgc	tgctcattgag	2160
ttggaacagc	agtag					2175

<210> 4947

<211> 3087

<212> DNA

<213> B.fragilis

<400> 4947

gttctgatag	gacttggcat	ttctgccggc	ctgctctctc	cgaactatgt	gttcgctacg	60
tctttagaga	cttatgagaa	ccagtctgta	gctgctgttc	agcaagcaag	gaagattacc	120
ggtacactga	ccgatgctgt	cggatgaacct	attattgggtg	ctactgtttt	agaaaaagga	180
aacccttcca	atggtacgat	taccgatatc	aatggtaaata	tctctctttc	ggtccatcct	240
aatgctgtga	tcagtatttc	gtatatagga	tacataaacac	aaaataattaa	gataactaat	300
caaacctcac	tgaaagtggg	tatgatggat	gatacccagg	cgctggaaga	agtagtggtg	360
gtaggttatg	gttcgcagaa	gaaagcgaat	ctgaccggag	ccgtatcttc	tgtgaaaatg	420
gatgaggtag	tgggtgaccg	tcctatcttg	aatgcatctg	atgctcttca	gggagccgtg	480
ccgggactgt	ttgtatctaa	tggaggtaat	gctcccggaa	ccagtaagtc	gttccagatt	540
cgtggagcct	attcgggtggg	tgtcaagaac	tcggacgggt	catacggaaa	caccattaag	600
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gagtcaatca	gtgtactgaa	ggatgcagct	tcagcagcta	tctatgggtg	acgtgcagcc	720
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tacaacaata	actttgcttt	cggaacagct	gtcaatctgc	ctaaacaggc	tccgctgatg	840
gactatctgc	aagcttatct	ggatttgtgga	tattcagatg	cctattgggtc	gctcgggttcg	900
ccaagtgtca	gcaaatggat	ggaatatctg	agtgaatacc	agaagaaccc	ttctgctttc	960
aatacgggtg	gagacgggat	ttatatggat	gaatccgggtg	taccatacta	tttgaatgaa	1020
aaagatctct	ataagaactt	tatggagacc	agtttccaga	tgactcataa	tatttccgct	1080
tcaggaggta	cggacaaact	gcgttatcgt	atttcgggtg	gatatacttc	gaatgacggt	1140
gtattgggtg	ccgatcgtga	taagtgtgaa	cgtatgaata	tcaataacct	tatttcggga	1200
gatgtaacta	actggttcac	tcaggaagtg	actatgagct	atgcacatag	tctacagact	1260
tcacccgggtg	gaatgggagg	tgtgtataat	accggtttgg	tttcatatta	tccggaagga	1320
gatctgccgg	catcagtcac	tacgttggca	aacgaggatc	ttcctttgtt	cactccacgc	1380
aaccagatct	tggtgtcgaa	tccggtaaac	aataataatg	acaatccgcg	tatcttcctg	1440
aaatccatat	tgaaccact	aaagggactg	gaagctgtat	ttgaatatac	atttgataaa	1500
aacatctatg	attaccactg	gtatacagga	cagtatgact	atactaccat	tcaggaggga	1560
agttcaaaat	cattttaga	cgattatctg	agaaagtaca	aacagcatac	gaattataac	1620
gctatcaacg	tttacgctac	atatagtaag	aaattcgggtg	accataattt	caaagtaatg	1680
gcaggattca	accaggagtc	gagctatcag	gaaacattgg	atgcttattc	ttacaatcag	1740
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tacagtgaat	atgccgtacg	tgggtggattc	tttagagtca	actataatta	tcaggacaaa	1860
tatttgctgg	aagtgaacgg	acgttatgac	ggttcttcta	aattcccga	gagctctcgt	1920
ttcggtttct	tcccttctgt	atcagccggg	tggcagatcg	ctcaggagaa	gtttatggag	1980
tctaccgcta	actggttggg	cggattgaag	attcgcgcac	catatgggtg	gatcggtaac	2040
cagaattgtg	atccgtatac	tttactccg	acaatgagtg	tcagcaataa	atctacttcc	2100
tggattatcg	acaatacgtg	tgtcacctct	atcagctcgt	tgcgggcttt	ggtaagccag	2160
aatctttacat	gggagaaagt	aggtacggtc	aatgtcggac	ttgatattaa	cttattcaac	2220
aatcgctga	atgggtgatt	tgaatgggtg	cagcgtaaca	ctaaccggcat	gcttgctccg	2280
gggtgtgcag	taccggctgt	cgtaggtgca	agtgtcctt	atcagaatac	tgccgatatg	2340
cgtacacgag	gctgggagtt	gagcttgaac	tggcgtgacc	agatcggtaa	gggtgggat	2400
cgtttgggat	tcaacttgtc	ggattataaa	tcgaaaatta	ccaaatacga	tgataatgca	2460
accaccaagt	tgctgagcag	tttctatccc	ggacaggtga	tgggagagat	atggggctat	2520
atagccgatg	gttattattc	tgtggacgat	ttcgaagata	catcatcctg	gaaactgaaa	2580
gagggaataa	cctcgatcaa	tgggtataaac	gtacgtccgg	gtgatgtgaa	gttcaaaaac	2640
ctccgtgatg	atgaaagttc	tactaatgta	attaccagtg	gtgacaatac	attcgacaat	2700
ccgggtgacc	gtaaaagtgt	cggtaataacg	actccgcgtt	atcagtatgg	tatcaatctg	2760
ggagctaact	atgccggttt	cgacctcaat	gttatccttc	agggaacagg	aaagcgtgat	2820
tactggattt	cgaatgtctt	gactttcccg	atgaatgggtg	ataacttcat	tccgttgttt	2880
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aatccgaatg	cgaagtatcc	ccgtctgtat	ggtaaccgag	gtaattccgg	ttcaaacttc	3000
cgtcagagcg	acaaataact	gtctgatgct	tcttatctcc	gtattaagaa	catcactttg	3060
tcttacaatg	tcttcaccac	ggggctg				3087

<210> 4948

<211> 609

<212> DNA

<213> B.fragilis

<400> 4948

ataatagata	tattttgtaga	ttatttttaat	ttaaaaacaa	cgacaagtat	gagaattaaa	60
ttattattttt	tgataagcat	tctgttctgt	acaggtagtt	atgcacaaga	gacggttacc	120
gaacctgatt	ttatagggtga	ggtgttagtg	ttaaatccgg	ataacagcac	gactccgctg	180
gaaaaagcta	ctgttaaaat	caaaaacaaa	gccaatgctt	cgatatattt	ggtaggtatg	240
ggtaaagtga	aaacaaagat	aaatgtagat	ggtcctagcg	ctcaggtacg	attacatcag	300
ggagatgatt	ttaagttgat	tgtgagagct	gtggacaaca	ataccgatcc	aatgtctatt	360
attaatatct	ttcagtttga	aacgggtaag	aaagtacgta	aggccgagtt	atcttctttg	420
agtacatttg	gaggagcctc	tagtaataat	ctggaactac	ttccgtatac	agctaaaaaa	480
tatggagaaa	gttcttatct	gatcacattg	aaagaaaagc	cgggtggcga	atatgggata	540
acggttcgta	atcctaattc	tttggatgaa	aaaaatatca	ttgtggcttc	gtttggaatc	600
gatcaataa						609

<210> 4949

<211> 1617

<212> DNA

<213> B.fragilis

<400> 4949

gatcgattca	tatccgggag	tcttgggaaca	gaatccataa	agggagaaac	atccggtgga	60
cccttgtccg	agtatacag	ggtctaccgg	ataaaaagaa	gatatagaga	taacctgaac	120
agttcattta	acaaaaataa	aaacgacatg	agaaacatcc	aacgaaccat	cctttggata	180
gccggggctac	tcttttgcct	gccatcctcc	agttcaaacc	cagtagtcat	aggcaatagc	240
cgttttacct	ttatcaccca	ccatctggta	cgtatggaat	acgcacagca	gggaaaagttc	300
ctgaacgact	ctaccctctt	cgctgtagac	cgtaccccca	gatgtaccga	agtaaaaagta	360
gagcgtaaa	aaggcaaccg	ttacatcatg	accactcccg	ccatgcgtat	cgagtattac	420
aatgacggat	ttcccttcgg	acaaaccaac	ttgtttgtct	atttccgaaa	cggagactcc	480
cctaaagaaa	aacgttggta	catagccagc	cgccaaagcc	ggaatctatt	aggagcagtg	540
acaacgcttg	atgacgtaga	aggtcccctc	gaccgccagg	aagggttatt	gagccgggac	600
ggctgggtatc	ttattaacga	taccggtaag	gaagtcctaa	aaaacggatg	ggtggcgaca	660
cgtgaccgta	accatgttca	ggatctgtat	ttgtttgttt	acgtaaatga	ctacaaggca	720
gccttgaaat	cacttcaggc	agtcagcggg	ccatcaccca	tgaccgcgaa	atatgtacac	780
ggatcttgg	attgccgctg	gtggaactac	acagacgaag	attatcgcca	gttggtacgg	840
gaatatcgtg	aacacgactt	tcccctcgat	atcatggtgt	tcgatatggg	atggcataca	900
caaaatgcca	aagtcggaac	cggacatgcc	ggcacacggg	gttggacagg	ctatagctgg	960
aaccgtaaac	tgattcccga	accggagaaa	ctgataaaa	acttcaaaga	cgatcatatc	1020
tacgtagtac	tgaacgaaca	tccacatgac	ggcatccgtc	cgcacgaaga	tagttatcaa	1080
gctttttgac	gagatttggg	agtcgatacc	cagcaaacag	gtgtaccctt	gtttgacgca	1140
ggtaaccgtg	actatatgaa	tgctttcatg	aaacatgctc	atcaggaaaag	tgattccatg	1200
ggagtagcct	tctggtggct	cgactggcaa	caagattatc	tatatcctct	ggtacgggga	1260
acaaatatga	aacatcttcc	ctggatgaat	cgcattctatt	ataattattc	gtccggcaac	1320
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ggaaccgacc	cggaacttta	cactcgctgg	acacagttcg	gattgctgaa	ttcttcactc	1560
cgcattccact	cgggtgtacga	cgaaaactcg	accgccgtcc	ctggctctgg	ggcgtag	1617

<210> 4950

<211> 1311

<212> DNA

<213> B.fragilis

<400> 4950

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atattggcaag	aaatatacgg	taccatcaag	cggaaacaaac	tccgtacgtt	actgaccgga	120
ttcgccgtag	catggggcat	cttcatgctg	atagtgtctgt	tgggagccgg	aaacggactg	180

atccatgctt	ttgaaaagtc	atcatcggca	cgggcgctga	actccataaa	aatatatccg	240
ggatggacag	ggaaacctta	cgacggatta	aaagaaggac	gacgcatcca	gttggacaat	300
aaggacctgg	atgccaccat	ggagcacttc	agcgacaaca	tcatcagtgt	aggtgccagc	360
caatggcaaa	gtaatgtaaa	cctgagttac	ggacaggagt	acgttaacct	ttcactggaa	420
ggtgtgtatc	cgaactttac	cgaagtggaa	tccgtaaaat	cgacagacgg	acggttcac	480
aatgacatcg	atctcaaaga	acgacggaaa	gtaattgtac	tgcataccaa	aacggctgaa	540
atccttttctg	gaaaaagcaa	aacagaaacct	atcggaaaagt	ttgtaaatgc	cggtggagtc	600
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ttcaccacca	aagggtcac	caccattgag	acaaacgaag	cattcgaggc	agcctatcgc	780
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aaccgtttta	ccaattatct	acagtcacaa	aacgctatgg	gcatcttgcg	tacagccatc	900
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atcgggatgg	tagccggaat	cgccgctacc	gaatggatga	ataaagtggc	cggagaacaa	1140
accgtagatg	taggaatgtt	ttcggaaacc	gtattcctga	atccgacggt	ggatatcagc	1200
attgccatac	aagccacgct	gaccttggtc	gttgaggaa	cactggcagg	attcttccc	1260
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<210> 4951

<211> 843

<212> DNA

<213> B.fragilis

<400> 4951

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agaaacaaaa	cacgaagcct	gctgacggca	ttcggagtat	tctggggcat	cttcatgctg	120
gtggccctga	tgggaggcgg	acaaggaatg	caggagatga	tgcaagccga	atttgaaggc	180
ttcgcaacca	actcgggttt	catggcctca	caaaagacag	gagaggctta	caagggattc	240
cgcaaaggac	gctattggga	tattgaaaac	gcagatattg	aacgaatccg	caaaaaagta	300
aaagacatcg	atgtaatcac	tccatcgata	gcccgctggg	gatcgacagc	catttatgga	360
gagaaaaagt	acgattgcag	cgtgaaaggg	ctttatccgg	actatgcaaa	gattgaaaac	420
caggatatgg	cttacggaag	atttatcaac	gacgtagacg	tacgcgaggg	acgcaaagtg	480
tgcgttatcg	gcaaacgtgt	ttacgagagc	cttttcaacc	cgggcgaaga	tccttgtggt	540
aaatatgtac	gggtagacgg	catttattat	cagggtgatag	gcatgtgtgt	gtccgaagga	600
aacatgaaca	tccagggccg	ggcttcggaa	gccgttgtgc	tacctttcag	tacgatgcag	660
caagcctaca	acatgggaaa	acgtatcgac	gtgatatgct	ataccgtgaa	accggggaaa	720
aaggtaagcg	accttgaacc	ggagatagaa	gccatcctta	aagaggccca	ttatatatcg	780
cgggatgaca	aacaggcagt	tatgaaactg	aatgccggag	gccatgttct	caatgatgga	840
taa						843

<210> 4952

<211> 552

<212> DNA

<213> B.fragilis

<400> 4952

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tttccattgt	tcatcaaggg	aggttgtcct	ctaccgatgc	agccttatac	ggaacgaatg	180
tgttccaccc	cgctcactga	attgatcgta	cgttgtttatc	cgggcaaaaga	aggagcaaac	240
aatacttata	tctgtacga	agacgacgga	ctgacccaag	actacctaca	agggaagtat	300
gccaccacac	gcctcaacta	tcagaaaacta	gggggacaga	cgatcatcac	tgtatctccg	360
gtagaaggga	cttatgaagg	acagccccga	aaacgtgcct	accggatcga	actgccgggg	420
attccggtac	aggcccgtgt	gtcggtaaac	ggcaaaaagg	ctcgaacaac	tcccaatcaa	480
gaattaaacg	gagttatcgt	acctattaag	gtaatggata	tccataaacc	gattgtaatc	540
aaaatacaat	aa					552

<210> 4953
 <211> 351
 <212> DNA
 <213> B.fragilis

<220>
 <221> unsure
 <222> (274)
 <223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4953
 ccttgccgga ttctacgacg gaaccgaccc ggaactttac actcgctgga cacagttcgg 60
 attgctgaat tcttcactcc gcatccactc ggtgtacgac gaaaactcga ccgccgtccc 120
 tggctctggg gcgtagaagc agaaaaggca atgcaccgga tttaccacct acgctctcaa 180
 ctgatgccct acatctactc ttccgtccgc caatgccata cagatatgtt gccacttaac 240
 cggggaatgt acattgaata tccggacgaa gaanaagcct atcaatatcc gggacaattt 300
 ctcttcggtg acctcttggt gggtgctccc atcaccgcca agggagaatg a 351

<210> 4954
 <211> 876
 <212> DNA
 <213> B.fragilis

<400> 4954
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 attcttctgc agaccagtga tgtgcatagc cgcctggaac ctatcaatca ggaagggtgac 180
 cggaattatg ataaaggcgg attcgtacgt cgtgccacat ttgtgaagga gttccgcaaa 240
 gagcatcctg atatgttatt gttcgattgc ggagacattt cgcaggggac accttattat 300
 aatatgttcc aggggtgaagt cgaagtgaag atgatgaacg aaatgaagta tgatgccatg 360
 actatcggtg atcacgaatt tgattttgat ctggataata tggcccgttt attccggatg 420
 gctgattttc cggtggtttg cgctaattat gatgtaagtg ctacggtgct taaagacttg 480
 gtgaaaccgt atgtcgtctt tgaaagagac ggtgtcaaga tcggagtttt gggattgggt 540
 tgccagcttg aaggcatggt acaagccaat aagtgtgtag gagtggttta caatgatccg 600
 gtaactgtag cgaacgaagt ggctgctctc ctgaaagaaa aagagggatg tgacgtagtg 660
 gtttgtcttt ctcatctggg tgtgcagtat gacgagaatc agttgatccc taaaacacgt 720
 aatatcgatg ttgttctcgg aggccattcg catacattca tgaaagggtcc caagactctc 780
 ctcaatatgg atggcaagaa tgtgtcgtcg atgcataccg gtaagagtgg tatctatgta 840
 gggcagatgg acttaacact tgaaaaaaag aaataa 876

<210> 4955
 <211> 345
 <212> DNA
 <213> B.fragilis

<400> 4955
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 ggaaccgggtg aaccgattat cggagggagt gtacttggtta aagggttcac gatcgggtaca 180
 gtgacagatg ttgatggcaa ttacacttta tctaattgtc ctgcagacgg agttctggag 240
 ttttcttaca tcggcatgaa gaaacaggat gtaaaaagtaa gcggtaaaac tgttattaat 300
 gttgtgcttc aagaagatac ccagatactg gacgaagtag gctag 345

<210> 4956
 <211> 357
 <212> DNA
 <213> B.fragilis

<400> 4956

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tatcctgccg	gaacaacggt	gcataacaac	gatacgaata	tcattttacct	gatattctgc	120
atgaaagggc	atgcacggat	taccagcaca	ttcttccacg	atgaaatttt	gtgtgcgggg	180
gaggtgatgt	tcgttcctcg	cgggagtgaa	tacagcggcg	tggcggttaag	tgatgttacg	240
ctgctggttc	ataaattcaa	taacacagtc	tgccagacag	aaaactgtat	cctttcctat	300
ctttattcgc	acaagaatat	tgattccaaa	atttattggt	gccaaagaag	aacgtaa	357

<210> 4957

<211> 906

<212> DNA

<213> B.fragilis

<400> 4957

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gttatcatat	ttattatggt	ttttctgttg	gtaatgagag	cttgctcgca	gaagcagccg	120
attcaggctg	ttgtaactcc	gtctgacct	gtcgtggggg	aagaaatatt	tttttccgat	180
tccacgtcgg	gagcgagaat	ctgggtactg	gagttcggaa	acaacgagac	atccacacaa	240
cgtagcggac	accatcggtt	caagcaaaaa	ggggtgtaca	aaatacgact	gaccgtcaac	300
ggaaatctgg	aacgctactt	tgatgtgagg	gtaaaagaga	agaccaatac	ggaagacctg	360
catctggttc	atatcatagc	tccaaggaa	gctattcagg	gagaaaatat	catcttccgt	420
ggcgaaggac	acgacgaaca	atggcgctgg	gagttcggag	agacggggat	gattgattcc	480
cgtgaaaaaa	cggctcttta	tgcttatacc	gaaccgggag	agtacgaagt	attgcttaat	540
acgggagaata	cccggatatcc	catcagacac	cggataaaca	ttctgcccta	ctattcggag	600
aatgattcta	ccgatgtaat	ggtgctcatc	ggtttagaca	tcaaagagaa	gttgacagac	660
attgcagacg	gtaaaccctt	taatgtaaac	tacaactatg	tcgtggacaa	gtattttaat	720
aataaccgga	acacgctggg	tgttatcaac	aacaataaat	ataacgactt	ttattcttat	780
tgccaaggac	tgcaccatat	cggcagaaaa	gaaacgatta	tccagaatgt	catcgtagag	840
acggagggatg	aagagagcgg	atacatcacc	caactaacgg	ttatgcaaat	cgaaaaaaag	900
aatga						906

<210> 4958

<211> 936

<212> DNA

<213> B.fragilis

<400> 4958

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atltgctttt	ttgcatgtga	aaaacaaaaa	gaagaatttc	ccgatatccg	tataggaaaa	120
gaaggagttg	ttgatgagtt	gtcgttgaat	aaacagacag	agaaaagact	tcttttgtca	180
ggtggaaacg	ggaaatatat	agttaatgtg	gagaacgcac	aaatagccac	tgctgatata	240
agtatggata	cccttaaagt	aaaaggttgg	ttggaagggt	aaacgtttgc	taccatcatt	300
tctcatgata	agcgcataag	gttgaagatc	aacgtagtct	ttccggagct	cggaataagt	360
cattccgtag	tgcagcttct	tccccgattt	agaagtaaat	tcataagtat	ttccggagga	420
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ggttctacgg	ggatgctgga	gatatatccc	aaatatgagg	gagaagcccc	ggttatcgct	540
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ctggaaattc	cgggggtgga	tagcaccaac	tcaagttcat	actatctgat	ccaaaataat	660
aacatggtag	tcaaaagaaa	aggagtaggt	acatggattg	taaacagtgc	ccgcccttat	720
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cagggtgact	ctatcgattt	aaatataact	cgccatggat	ccttgaaacc	gcagataaca	840
gaaggtatac	ataggctgta	tgtagaagaa	gtgcgtgagt	cggaagtcac	gttacgggga	900
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<210> 4959

<211> 846

<212> DNA

<213> B.fragilis

<400> 4959

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atcgctggtt	tatcggtttg	tgctcccgtg	caccgcttca	ctcaactgcg	gaagcttcct	120
cgtgaatatt	ctgacaatta	ttccatagag	gggataaagg	caccacagaag	cgctgcccac	180
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caacgcaaaa	aggcggaata	tgtgggctgg	atgcaccgct	ccgactgat	actttcacct	420
tcttccatta	ccgatgtaca	gtcgggactg	catgacaaat	tgttgactgc	gattaccgac	480
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ctcaagcatt	ctgttgacaa	acgcagtgtg	ttggatcga	aaactccctc	tctctctgcc	660
gataaaatcg	gtgagcaggt	gatcggtatg	gttcccgcgt	tcatgctcca	agaaatcgga	720
catcaggtgt	tcacaggaac	ggcgttttcc	agagtgccga	ctttgcaaaa	gacgctgaaa	780
tatgctccta	tgatatatcc	ttatcatacc	gattccacct	gctcgttcgt	cagcggaaca	840
ttataa						846

<210> 4960

<211> 1557

<212> DNA

<213> B.fragilis

<400> 4960

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acccgtggaa	atcaaatcaa	gcaagaattg	aagcgaataa	atatcctggt	cgcaatggaa	120
cagtcttccc	ggctaccgga	acaatacccg	atgctgttga	atgccataca	gaatctggga	180
ccgttttttg	tcggttccgg	tgaatcggtc	tcctatcaat	tcggagcggc	ggtagctacc	240
ccccggggca	tggagacaat	tcccctgact	gctgactacg	agatacttat	agaccgattg	300
gtaaaaatgg	cgtcatatgt	agctgacact	gaaaatactc	ctttgcctgc	atggaaggca	360
atgagaagtg	catttgaact	tatcggtcaat	acacctgaag	cgggttaatct	gattatatca	420
gtcggtgaaa	cgggagaaca	gcaagagaat	gctccctctt	ccattgtgaa	aaccttgaat	480
gaaaagaact	gtcgctgct	cggttggcaa	ctgtacgcct	cgaacgacga	taagtacaat	540
aactatgtgc	ttcaactttc	aaacatgatt	gaacattacg	ccgagtaccg	cactaaaaac	600
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tttccggaga	aaggtgaaac	cctgccaatg	gaattgtttg	ccggagcggg	ggattccatc	780
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acggttggca	atggtaaaga	ccgttttagac	agtcttctga	ttgcaaccta	tcctctgcct	900
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tatagaaaaa	cagaaagaat	taccgttccg	gacagtttga	tgcgctatta	cctgctactc	1020
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gatgtgaagg	acatgaataa	gcaaagaaga	ggtaaagtta	aacagttgtg	ccgctattta	1140
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gatgacataa	cggtgaagga	gctcaaaaag	aaaaaacagt	taaccgacaa	agagttggac	1440
ggacttattc	aatattttta	agagaggaaa	gaaaatatgg	ctaagaaata	cggagaagaa	1500
aaaataacga	tggaaggaca	aagctattac	tacatagctt	cagaactgtt	accgtag	1557

<210> 4961

<211> 540

<212> DNA

<213> B.fragilis

<400> 4961

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gaacgcttta	tcggattttg	atatgtgctt	accctgctta	ttgttatcac	aggagcctgt	120
ggattttatt	ttttcaagta	tgcagggaca	cgccacatct	tctccaataa	aataatgggtc	180
attaaaaaga	tggagcggca	aaaggaattt	caaaatatac	aatcagtaca	gattgtgagc	240

gcagataccc	tatttttcacg	tattgaacag	tttgagccgg	gcgtaaatgc	ctcttatgag	300
gaaaaatgata	tcaagttcct	gataaacgac	cttgccaaac	aatgggagaa	aaacagcttt	360
gacaagcgca	ataagatggt	ctggcatctc	gcttcggtat	atgaaatgtg	gtttgccgac	420
aagaaagaac	tatggagcaa	acaggataac	ataataaagt	tcaagaaaaa	tctggaggag	480
tgcgaaagtcg	gactccagaa	gaaggaaggc	gaacttaaaa	ataaaggagg	caagccatga	540

<210> 4962

<211> 321

<212> DNA

<213> B.fragilis

<400> 4962

tatggggatt	gcgcggaccc	ttccagcccc	gtggtggaag	acatgggcag	taacgaccgg	60
ctgaatcagg	tgggtgctcca	aaaagttatc	agtacacgca	agatggaact	tatcgaggaa	120
ctgcaaataa	tggatagtaa	ggatgtactt	ctgtacaaaa	aactggcttc	gcaaatcaac	180
gtgtttctgg	acaccaaaga	agccatacgt	aaagcggtta	ttgaagaaag	ccttgtgaga	240
aaagacctga	tgcggtgcat	tcaggacaat	aaacaggcta	cccgaagct	gacattggga	300
aacattattg	tagaaaagta	a				321

<210> 4963

<211> 957

<212> DNA

<213> B.fragilis

<400> 4963

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gtgtatgcac	ttaaaatatg	gcttaacgga	ggatctgttt	tcttggtca	acccgtatcg	120
gtaaaagcag	gaaaacaata	tacactctct	ttttggaaca	aaggaaagtgt	gggaaatcgt	180
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ctttctataa	gaacgggtaa	agatgagtgg	agaagagtgg	aaagtactgt	aacaataccg	300
gagaatatcc	atagtatggg	gatggggata	aggacacaga	gctatcaggg	ctatatgctg	360
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cggagtttcg	aaggatttta	taaacgattt	cgccctggaag	tttatattga	tgaggagaa	900
ggtcgtgaat	gggagattct	gtatctcat	ttgggcgtaa	aaagaaatga	aaaatag	957

<210> 4964

<211> 195

<212> DNA

<213> B.fragilis

<400> 4964

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tccttttcta	tctttattcg	cacaagaata	ttgattccaa	aattttattgt	tgccaaagaa	120
gaacgtaaga	aacatgtata	tagtttagtt	ctgtgcacaa	tactgattaa	gtttttattgc	180
aaatacaaaa	cttaa					195

<210> 4965

<211> 1875

<212> DNA

<213> B.fragilis

<400> 4965

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tttagtaaga	tttatgctgc	tattcctcaa	aaaacgggtcc	atatagagtt	atcggtgggg	120
agaatccgta	ccatcatgat	caatgtcatg	ggatgaagtaa	aagtaccg	tatttatcgg	180
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gccgacctat	gtttgcagaa	gaatgatgtc	ctctacattc	ccagtgtgaa	agatattgag	900
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<210> 4966

<211> 399

<212> DNA

<213> B.fragilis

<400> 4966

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<210> 4967

<211> 951

<212> DNA

<213> B.fragilis

<400> 4967

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<210> 4968

<211> 1527

<212> DNA

<213> B.fragilis

<400> 4968

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<210> 4969

<211> 1719

<212> DNA

<213> B.fragilis

<400> 4969

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<210> 4970

<211> 213

<212> DNA

<213> B.fragilis

<400> 4970

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ggtgcccgtt	cgcaagagat	gtatcaaaaag	aaagttttta	tctcttcccg	gggtgattct	120
ctcaattacc	gtctacttcg	tccggagggtg	gaaaagacgg	gactgctctt	tcaccacggg	180
gctggaagga	tccagcgggtg	gatgcgattt	caa			213

<210> 4971

<211> 450

<212> DNA

<213> B.fragilis

<400> 4971

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<210> 4972

<211> 2319

<212> DNA

<213> B.fragilis

<400> 4972

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<210> 4973

<211> 2847

<212> DNA

<213> B.fragilis

<400> 4973

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<210> 4974

<211> 1083

<212> DNA

<213> B.fragilis

<400> 4974

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<210> 4975

<211> 2475

<212> DNA

<213> B. fragilis

<400> 4975

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<210> 4976

<211> 3030

<212> DNA

<213> B. fragilis

<400> 4976

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<210> 4977

<211> 1731

<212> DNA

<213> B.fragilis

<400> 4977

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cttcataacc	tgcaggaccc	cgatcttttt	atcgacgacg	atggcaaaagc	ctatatgttc	480


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<210> 4978
<211> 1545
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (63), (68)
<223> Identity of nucleotide sequences at the above locations are unknown.
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<210> 4979
 <211> 1314
 <212> DNA
 <213> B.fragilis

<400> 4979
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 actcttgtcc agaaacaaac tttccgttac ttttgggatt ttgccatcc cgagtcgggt 180
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 ccgattattg tgatgattga aaactatcgc tcaggcttga tatggaaact cttcatgagt 1260
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<210> 4980
 <211> 342
 <212> DNA
 <213> B.fragilis

<400> 4980
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 ccttttcggc tacacggacc aacacacagt gacaggctga gttcttcatc cgtcaataac 180
 tataaatata taggttataa ttacagtga tatacagatc cacgctcaag tagtggagag 240
 ggggtagatg ggcgtatgcg tgaatatcaa actaccactg tacgtcgtta ttctaatacat 300
 atgatacgtt ttaacaagat gtttggtaaa cattcaatat aa 342

<210> 4981
 <211> 267
 <212> DNA
 <213> B.fragilis

<400> 4981
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 tttccctaca tggatatcca taatgaaacg gcagttgtg agcatgaagc gactaccagt 180
 aagattagtg aggatcagat attttattgt aatcagggtg gtactaatgg ctttccaagg 240
 gggctgcaaa gggccgctct atttatc 267

<210> 4982
 <211> 234
 <212> DNA
 <213> B.fragilis

<400> 4982

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ggttatgaac	ggacattgcg	agcattagac	acttcgctcg	cccgtttggg	attggattac	180
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<210> 4983

<211> 564

<212> DNA

<213> B.fragilis

<400> 4983

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<210> 4984

<211> 402

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (393)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4984

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ttaaaccgta	agttctcggt	aaaggtggca	cctaattcac	aattcttggt	gagctatatt	300
ggctacaagc	aacaacaat	taaagttggc	tctgaaagca	cttataatat	tgtcttcacc	360
acggggctgg	aaggatcagc	gctggccata	cgntcagaaa	ac		402

<210> 4985

<211> 213

<212> DNA

<213> B.fragilis

<400> 4985

tctccattgt	ccgtaagcgt	acgctttccg	tcggttttat	ccgcagggaa	cggagacgtg	60
cgtgggttgt	ggctgggtgc	aggtctggta	tcggtgggag	cggccttcct	gttggataag	120
aagtacgaga	tgacttccga	tttatatccg	gtcaatgtgt	gctataacgt	aatgcttgcc	180
gtggagccgg	aatgcccgga	ctctcgatta	tga			213

<210> 4986

<211> 1125

<212> DNA

<213> B.fragilis

<400> 4986

gaagacatta	cgcatattcc	tgtgatagag	gactctgctt	ctgtatccgt	cactgctgat	60
tctgtcgcgg	tgaacgtag	tttcttcaag	aaattcctgg	actacttcaa	tgatgccaac	120
aaggagaaga	agaacaaaaa	gtttgacttc	agtgtgatcg	gtggcccgcg	ttattccagt	180
gacaccaaac	tcggactggg	cttggtagcc	gccggactat	accgtaccga	ccgtgccgat	240
acactgcttc	ctctctctac	tgtttcgtcg	tatggcgatg	tgtccactgt	cgggttctat	300
ctgctcgggtg	tacgcggaag	tcataatatt	ccgaaagaca	agtaccggct	caattataac	360
ctttatttct	attctttccc	cagtctgtat	tggggcgtcg	gctaccggaa	tgcggtgaat	420
gacgagaatg	aaagcagtta	caagcgcttt	caggcacagg	taaaggttga	ctttatgttc	480
cggatggcaa	aaaacttcta	tctggggcct	atggcaagtt	tcgactatat	cgatgggagg	540
aattttgaga	aacccgagct	ttggcaaggg	atggatgcc	gcacctccaa	tgtcagtgcg	600
ggacttttct	tgggtgtacg	ctcgagagat	ttcctgacga	atgcctataa	aggatattat	660
ctgcgcatag	accagcgctt	cagtcgggca	tttctgggga	atgactacgc	tttcagtagt	720
acggaactga	ccaccagtta	ctatcgccgg	gtgtggaaag	gcggaatact	tgccggacaa	780
ttccataccc	tgctgacct	cggcaatccg	ccttgggggc	tgatggctac	cttgggaagt	840
tcgtactcca	tgcgtggcta	ttatgatggc	cggtagccgc	ataagaatgt	ggtggacatg	900
caggtggaac	tccgccagca	cgtatggaaa	cggaacggag	tagccgtctg	ggtgggagcc	960
ggaaatgttt	tccccgactt	ttcctcattc	aaagtgaaac	atatacttcc	caactatggc	1020
tttggctatc	ggtgggagtt	taagaagaga	gtaaatgtac	gattggattt	agggtttgga	1080
aaaggccaga	cgggatttat	atttaatatc	aatgaagctt	tttaa		1125

<210> 4987

<211> 210

<212> DNA

<213> B.fragilis

<400> 4987

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caaaaaaat	ttttttcccc	agtctccaa	agaaaaagg	gaaaataacc	agcccggaat	120
actcttttta	atgaaaaaag	gccctatatc	actctagaaa	aaaaatttgt	cgggtataag	180
gagatggaat	ggtctaaagc	cattaattag				210

<210> 4988

<211> 564

<212> DNA

<213> B.fragilis

<400> 4988

ggttttgaaa	aggccagacc	ggatttatat	ttaatatcaa	tgaagctttt	taatagtata	60
aaaaaatggt	tcggtaatca	ggagaatttg	ttctaactgt	tcctgtttgt	gctgatagt	120
cccaacgttg	tattgtgttt	caccgaacct	ttgccgcttg	tagccaagat	tgccaatgtc	180
ctgttgccat	tgggggtgta	ttatctgatt	atgacctttt	ccaggaattg	cggaaagatg	240
ctctggattt	tattcctttt	cgtattcttc	ggggcctttc	agatcgtgtt	gctctatctg	300
tttgggcagt	ccatcattgc	ggtggatatg	ttcctgaacc	tggcgactac	caattcttcc	360
gaagccatgg	agttgctcga	caacctgttg	cgggctttga	ttacgattgt	gatcctgtac	420
atcccggccc	tgatactggg	gatgatctcc	attgtccgta	agcgtacgct	ttccgtcggc	480
tttatccgca	gggaacggag	acgtgcgtgg	gttgtggctg	ggtgcaggct	tggtatcggt	540
gggagcggcc	ttcctgttgg	ataa				564

<210> 4989

<211> 207

<212> DNA

<213> B.fragilis

<400> 4989

agagacttcg	aaggatttca	ctttcattgc	cgccgcacgc	atccggcaga	agaccgggag	60
atttacgtac	tggtagtggg	agagacttcc	cgtgcgctca	attggctcgt	gtaccggttat	120
gatcgtgaga	caaateccaa	actgtcggag	gtatccggcc	tgacggcttt	tacgaatgtg	180
cctgacccaa	tcgaatacaa	ctcataa				207

<210> 4990
 <211> 402
 <212> DNA
 <213> B.fragilis

<400> 4990
 cggctttttac gaatgtgcct gacccaatcg aatacaactc ataagatggt cccaatgctc 60
 atgtctgccg tttcggcgga gaatttcgat tccatctatc atcagaaagg aattattacc 120
 gctttcaaag atgcagggtt caggacagct ttcttttcca atcaggggta caacacctct 180
 tttatcgact gctttggaca cgaagccgat cactgtgact tcatcaagga ggatccgttg 240
 actgccggtc agaatctttc ggatgattat ctggatgacc tgggtgcaaga ggtacttgct 300
 acgggaaccc gtaaacgggt ttcccgggtt taccgcgtccg gtatacattt gaataatcgg 360
 aatcgtatgc tcgtccagac atctcttatt ctagccgaat ag 402

<210> 4991
 <211> 324
 <212> DNA
 <213> B.fragilis

<220>
 <221> unsure
 <222> (132), (159), (161), (209), (249)
 <223> Identity of nucleotide sequences at the above locations are unknown.

<400> 4991
 ccttcgtcat cccaaaaacg tactttttct tgcactctgt ctgggctata ttccaagcga 60
 cttttaccag gaattctttt gggtttcttta agaggaggta aacttaagtc cgaatttttc 120
 tccccagcta anagaatcat agaaacctca tctcctcgnt ntatcataga aactccacct 180
 attgcatatt ttaattttatt tatccatant gaaaaatcta tgtctgggtg ggtattagtt 240
 actgtgaana ttgaaattct atcttcatca aataatttta atgattcttc gaattttatt 300
 gggcaatctt tggaagtaac ataa 324

<210> 4992
 <211> 864
 <212> DNA
 <213> B.fragilis

<220>
 <221> unsure
 <222> (147), (187), (235), (237), (264)
 <223> Identity of nucleotide sequences at the above locations are unknown.

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 gccttatcgg attatgttac ttccaaagat tgcccaaata aattcgaaga atcattaaaa 120
 ttatttgatg aagatagaat ttcaatnttc acagtaacta ataccccacc agacatagat 180
 ttttcantat ggataaataa attaaaatat gcaatagggt gagtttctat gatanancga 240
 ggagatgagg tttctatgat tctnttagct ggggagaaaa attcggactt aagtttacct 300
 cctcttaaag aaacccaaaag aattcctggt aaaagtcgct tggaatatag ccagacaga 360
 gtgcaagaaa aagtacgttt ttgggatgac gaagggtatt ggaagacaat aatcctttta 420
 agatttgatg ttttaaccat ggagctagac gcaaaattca taaataaaga tatgggtaac 480
 tctttttctg tattgacaga ttatattgag tcgtttttat cagaaaaagg ggagttcctg 540
 tttccagaag ctgaaaatta tctaaatgaa caaaaggtaa aaatacaaaa ttattatcct 600
 ttggttgaga ttgctagaac gtgtttacat ctattgtctt atgtggaaaa gtacacagac 660
 tcattatcgt cggaggagca tataacagta ttaggacatg aaccgataaa acctagattt 720
 ttcaaaaaag ataaaatggt tccacaaaaa tatgagttgc gaaaaagaga tgtatggaat 780
 ttaaaggagg aaagggataa ttattcctct agcataataa catttaagtc ttcaccacgg 840
 ggctggaagt atcaacgctg ttcc 864

<210> 4993
 <211> 633
 <212> DNA
 <213> B.fragilis

<400> 4993
 aacgcataca atatgaaaga acattcaata aaggcgggtca ggctaacccc cacagtgaag 60
 gcccggtctgg acacctttta aggaagcgac acgggtcagtg tctgtatcga tagaatgatt 120
 acttttttttg aaatcacagg gttcaatccc cgctacgcat cccggaatcc gacggcactg 180
 gtggaaaaga gaattgagga cgttgtcaga atcatcaagt cccaggaacg ggatatactc 240
 aagcccgtag ttgagaaact ctccgccata aacaacaccc cgcaggagtc acccgattat 300
 gcccggttga tgaacgagtt ccgggatctg aaagatgaaa accggaaatt gaaagaaagg 360
 ctgcaggcgg atgatctcca taccacagac gccgcgctat accatgacaa gctcaaacgc 420
 ctgggcgacc tgctgaaata ccagcttgat ccggagaagt tttcaacgat aaaatacagc 480
 gatgatgtaa gaggccccgt caacaccctg cagttgctta tcaagaagat caacgaggaa 540
 tatgttcttg tcaaccgcat aggcgcgtat acactccgca cgtaccggat aacaaagata 600
 aatgctcccc ggctggtaga ctactctgaa taa 633

<210> 4994
 <211> 312
 <212> DNA
 <213> B.fragilis

<400> 4994
 tatccgatac cgacctgcat gatgtcgggt ttgtccttta tctgtaccc tgaaaggagc 60
 aaatttgctt taaaaaacia aaggatgaaa ggattgacag aactgattgt ggcgggctgt 120
 attttattcg gctgtcttct tacgcgcgtg gttttctcca tactggattt tataagcgga 180
 gtgcgcaagg cccggcagcg cggtgaaagg atcacctcgg accggtatcg cagaagcgta 240
 aagaaagggc cggttattaa acctgctgct gtttcacccg ggggtggaaga cagcgggggtc 300
 agaaaggttt ca 312

<210> 4995
 <211> 831
 <212> DNA
 <213> B.fragilis

<400> 4995
 aaatcgagat atatgaataa ttacgttaag acttccgttc ccagaccggt gggcaatccc 60
 ggaaacggta tcaaccccaa agacgtgctc accctgatcg acatcgacga tctgggtctat 120
 ttccctcccc gtgacgggtgc cggagtgggt ctggagggtg acatcgtggt aaagccgctc 180
 gcttactcca cggacttgta tttaactccc ggtactgtgg agctgagctc caacggtgaa 240
 ggggaaacgg acgccaaggg cttcacccct tcggttaagg gaaaacatcc gggtaacaaa 300
 caggagggttc gtgagttcaa gaccaactgg ctgggacgcc actgcatagc tatcctgcaa 360
 tactgcaacg ggcaggatcc ggatatcctg ggttccccctt gcaacccttt ggaaatgtcg 420
 gtcaattata ccggaaataa agacggcaac gcctcggagt tcaccttcac gcagataagc 480
 aaaggagacg atatcggtat ctataaaggc accatcccac acgaagagcc ggtggcgact 540
 gttcccgcat cggcaacgga aattcccttt aaaggccgcg ggcagtacca gctaagcgcc 600
 ggagcggcca agatcgctac cattaagggg gccaaacacg gcgacctgtt caccctgctc 660
 ggggtggtgt ccggcgtagc tcctacaatc gaaaaggcag gacagacagc cttcatgctg 720
 aaaaacggaa agacgttcac cgcttcaccg ggcagccaga ttactttcaa ggccttcgat 780
 accggcgggg gagccatcca gtgtgtgga cagtcgagat tcgagggtta a 831

<210> 4996
 <211> 186
 <212> DNA
 <213> B.fragilis

<400> 4996

aatggaatcc	agaaaaaaaa	actgattttt	catcgccgga	ggctggaaat	caaaagggcc	60
tcctggctga	aaatggggac	ccgttacctt	catccctgcg	accgcagtga	agcgggcatg	120
caggcacgga	agctggataa	cgagatcctc	tcttgtaata	accgtttaat	gaatttatat	180
gaataa						186

<210> 4997

<211> 1488

<212> DNA

<213> B.fragilis

<400> 4997

ctgtttttac	acgtgcaaac	acttgtaaag	aactccttcc	gaagaccgcg	ccgctcagaa	60
gccgaaaggc	aattgcctga	ggggcaaatg	gtgaaatatg	attacattaa	gggcaggcag	120
gcagaagggt	tgggaacgaa	aaaccgcttc	cggtatattcc	ggaagcgggtc	aggcaaaaca	180
aggcaattgc	ctttcttata	cccccgtcag	gtcatcgagt	ccgggcatgt	agggaccgga	240
cctgctgcgg	ccggacttgc	ccctgacggc	acgcctccag	gccccccgca	tcatcaggta	300
cttgaaggcg	tccgagaagt	tcgtggagag	catgggcagt	ttcttgggct	ccagcttctc	360
ggacttcttg	accttgtaga	tgatcttctg	ctgtcccttg	taacggatac	ccgcaggcgc	420
cttctcgata	ctggagatgg	tctcgcgaca	gttcaccgcg	tcaacaagca	aagtggggag	480
ggcgtcggtg	tcgcctgtca	tcagctcctg	catgaaatcg	tactcttcat	cctggcggat	540
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tatctcgatg	gcctgcttga	gcttgccggc	gtaatcctct	ttctgcttct	cgaagttatt	660
gcccgcgcgg	tcgtaataca	ggttcagttc	cttctcctca	tggttaagga	agaatgccag	720
gaactggtcg	gccagctgcc	tgaaccatcc	gggaggaagc	tcgtaaaagt	tcttgtgaag	780
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ttctccgtac	cgtgtcccg	cgggtatactt	gtgcctttcc	ccgaaagcga	tatagaagcg	960
cgtgtcacgg	cgaagccccg	gacgcacccc	cactacagac	ttaagggaag	cgtggagtcc	1020
gagcgcgccg	tcgagaaggc	gacggacgta	ctcaggcgta	aggatgtcga	tgttggtaaa	1080
actcgaggcg	ttgatgaagt	aggtctgccc	cttgccgcatc	ttcagcagcc	ccgcctcgta	1140
ccaggcgatt	ttcttcttaa	gagccccgca	gtccgtccgt	gtccttcccg	cttttaccag	1200
gcggacgcgc	aggtgtttca	gctccgcagc	cgcctgggcg	atacgcagga	tgcgctgagg	1260
atcgaccaga	cagacgtaac	ggaagtacca	gtcatactca	ccctccagca	cgtcgggcat	1320
gtcgggtggt	atgggtaccc	ccagaaaata	gtgggtgcat	ccgtaacgta	tggcatcccc	1380
gcgcaatacg	ggcatggccc	ggttgacttt	attgtcgggg	gcgtatttgg	attcgtcgaa	1440
gaacaaatga	acgaccgatt	tgcccgcag	aaggaggggg	tgggtctag		1488

<210> 4998

<211> 348

<212> DNA

<213> B.fragilis

<400> 4998

atattatatga	ataatatgga	gcgtttgccc	goggacacct	ttttcctgga	ccttgaactc	60
cgccaggagg	tggagcgc	ggcctccctg	ggatatgctc	cggacgatat	cgccctcttat	120
ctggggctgg	atgcggagag	ttttgtcttt	gacgcgggaa	gggaaggagc	caccgtgtat	180
tcccttatgc	gccggggagc	attgaaggcc	ggggccggag	tggagctaaa	actgcaagaa	240
caggcacttt	caggggattt	ggatgccatg	gaactgctgg	agaaagtgcg	tggctgcagg	300
agttttgaaa	taatagtga	gcaaatcgat	gaagacgaat	ttgggttaa		348

<210> 4999

<211> 1668

<212> DNA

<213> B.fragilis

<400> 4999

cccaccgatg	atgtggagg	tcgttaactc	catatcatca	aggttcatca	ccgactggat	60
agacaccacc	aacctggtt	tcgtcgcggg	ccggctgcca	agagtaccgt	catacaagcg	120
cgccggtcgg	ccgattgcg	gtatgacatg	cccggtcgc	cgttggcttt	cgtggggaat	180

acatatacca	acttaagga	taatatcatg	ccggccgtca	agaccggctg	ggaactgatg	240
ggactctatg	aaggcgtgca	ctatgtatcg	tcccgccggc	caccggaatc	ctggcgagg	300
cgttgacagc	tgatcgctga	cgattacaag	aacacggtct	ctttcttcaa	cggtatgatt	360
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ttcttcgacg	aatccaaata	cgcccccgac	aataaaagtc	accggggccat	gcccgtattg	480
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gacatgccc	acgtgctgga	gggtgagtat	gactgggtact	tccgttacgt	ctgtctggtc	600
gacccctcagc	gcacccctgcg	tatcgcccag	gcggctgcgg	agctgaacag	cctgcgcgtc	660
cgcctggtaa	aagcgggaag	gacacggacg	gactgcgggg	ctcttaagaa	gaaaatcgcc	720
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agttttacca	acatcgacat	ccttacgcct	gagtacgtcc	gtcgccttct	cgacggggcg	840
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gaacctgcac	aaagctgcct	ggacctgcgt	ttcctcaggc	gcggcgagcc	catcgacggc	1020
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cgccttcaca	agaactttta	cgagcttcct	cccggatggt	tcaggcagct	ggccgaccag	1140
ttcctggcat	tcttccttaa	ccatgaggag	aaggaactga	acctgtatta	cgaccgggcg	1200
ggcaataact	tcgagaagca	gaaagaggat	tacgcccga	agctcaagca	ggccatcgag	1260
atagacggtg	acggtaaccg	cacgggatgg	attgtcaacc	tgatgagccg	caaacagtc	1320
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tccgagaagc	tggagcccaa	gaaactgccc	atgctctcca	cgaacttctc	cgacgccttc	1560
aagtacctga	tgatgcgggg	ggcctggagg	cgtgccgtca	ggggcaagtc	cgccgcgacg	1620
aggccgggtc	cctacatgcc	cggactcgat	gacctgacgg	ggggataa		1668

<210> 5000

<211> 1077

<212> DNA

<213> B.fragilis

<400> 5000

tggctctgata	tcaagaccat	tccactttca	ggcaattgcc	ttgttttccc	tttacggggc	60
aaggcaattg	ccttttttca	gtcctttgta	cgcagccgg	tatcggttat	ctttacggcg	120
tatcatttaa	aattcaattc	aatgaaagag	caaatcattt	cctatttaga	aggaccgct	180
gattactccc	aaggggtagc	cctgtatgag	cagttcggtc	ccaaccgcat	gctgaaggcc	240
aagttccggc	agatcgggga	gtgtgagatg	acaaggggaa	cccttatcga	ggagctgcgc	300
aagctttccg	gcacgagcga	ggcgggaattt	gccggcatgc	acaggaaggc	gcacatatt	360
ccgtcgaagg	cgggaacagcc	gttcagcccc	gtccctgtca	ggatgtatgc	ggacgacctg	420
cttatcgccc	ttgcctcacg	cctgggggta	acggtggaaa	aactggttaag	cgacgatttt	480
gtaaaagagc	ggctctccca	aagtccggat	atggaacagg	tgccgggtct	gaaggaagaa	540
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gtagcggaca	tgttctccgc	ttatgatctc	tatcgggaaa	gccaccgcat	gctggtcgag	720
acaccggatg	acgtggccac	cggggagact	tacctttggg	ctaaaacggc	cgtggagaac	780
ttcctggaga	accgccaat	gtgggaagag	ttggagtatt	ataagaataa	cggagaaatc	840
ctcgaaagg	cgcaggccat	gcggcaggcc	aggagaaaac	aggaaatctc	ctccctgacg	900
gatctggaac	tgtccaagca	gctgggtaat	gccaagtcta	acatatccaa	gggaaaaaac	960
gaactcgaaa	aagcaccgga	tgaagaaaag	agggtcaagg	ccatggagaa	gacccgcaaa	1020
tggacggaac	gcaaaaaatct	gctggaggct	gaaatggaat	ccagaaaaaa	aaactga	1077

<210> 5001

<211> 630

<212> DNA

<213> B.fragilis

<400> 5001

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atcgggcaga	tagggcgat	cctcgccacc	ggtgatctgg	actcgcttcc	cgaggagcag	120

cgggcggtatt	acgacctgat	ggagatgggtg	cgcggtactgc	gtgcccgtat	gaggtataac	180
gggaaggtga	ttacaaaagc	cgggatcatc	cggctgctca	agtctgaggt	atacgggctt	240
tccgactgga	tggcacggca	ggtatacgcc	gactccgtca	atttcttcta	cagccaggaa	300
aacatacgtc	cgcaggcttt	tgccaacctc	tatgccgaaa	agctggagaa	gtgggccgat	360
tccatgttcc	tgacgggcaa	gggggaggaa	gcctcccga	tactcgagcg	ggcggccagg	420
ctccgggtgc	gcttcgcatg	tgacgaacag	gagatacccc	aggaactttt	agacaggaaa	480
cccggtggtga	tctatacatg	tgacgggtcc	gatatgggcg	ttccggatac	ggaccgcaag	540
gagctggagg	cgttcatcga	ctccattccc	gaggtgcctt	ccgtggtacg	tgagagggta	600
aaggaggatg	cacgcataaa	gaagttttga				630

<210> 5002

<211> 1014

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (110)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 5002

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gcttgtgcgg	gaggagacgg	gagcgaatgg	aaaaagaagg	tggcggcaga	cacgctgcat	180
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gatatccgcg	ctacgccgac	tatctatctg	cttgacgggc	ggaaaacggg	gataactcaa	960
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<210> 5003

<211> 381

<212> DNA

<213> B.fragilis

<400> 5003

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caggcaccga	ttgttgtttc	gggttacaat	ctgaaccggt	atgcgttgga	gaatatcaga	180
ttgtgcctgg	tgacacatgc	caaaccggaa	caggtgatcg	atatcaggct	tgtgtatacg	240
tactctgagg	ggaaggtggt	tgtggcttta	ccggagttga	agccgggtga	gtatcgctct	300
gcggtgatac	tgaaggaga	tgaaaaaaag	gtgtatgtac	tgcctatgcg	gtgggtggta	360
cgaggaaggt	ggagaagata	a				381

<210> 5004

<211> 216

<212> DNA

<213> B.fragilis

<400> 5004

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gttggcaagc	tgggagagat	ggacaagccc	gttctccttg	atgcctatat	cgacaaaagc	180
tccgaagttg	gtgatgttgc	tgacaatacc	gggtag			216

<210> 5005

<211> 2127

<212> DNA

<213> B.fragilis

<400> 5005

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aaagaaatca	ccggcgggact	cgacgaagtg	cagatagaat	ctatcaaaac	gcagtacgat	180
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aacgggcttg	tccatctctc	ccagcttgcc	aaccgattca	tcaccgatcc	caccgaagtg	2040
gtctccattc	accaacacgt	cacggtgaaa	gtattgagca	tagacctcga	acggaaacgg	2100
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<210> 5006

<211> 324

<212> DNA

<213> B.fragilis

<400> 5006

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aaaaaaacgg	atacacacac	tctaaaacag	atgaatatgc	cggtatcgtt	caaatatatt	120
ctttatttac	ttctgttagt	tattggttgc	tgtcctccca	tggcaggaca	tgctgctacc	180
ggtgagaaac	ccatactgat	gatctgttcg	tacaatccgg	gagcgtatcc	gacttctgcc	240
aatgtatccg	actttatgga	cgaatatcag	agggtggggg	gcaaacgggg	agtggtcatt	300

gaagacagtc atcaccgggg gtgc

324

<210> 5007

<211> 834

<212> DNA

<213> B.fragilis

<400> 5007

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gactgggtgg	aggtgagtga	acccgaactg	ttgcaaggac	attatgacgg	acggttcacg	120
gtgaagggtgc	attctaattgc	cggataccgg	gtgcgtgggtg	gattttccggc	agcgcggtcac	180
acgggtgctct	cgttgggtgaa	tgatacgggc	gtagtacggc	atatccttat	ttatcaagggt	240
ggttacgtac	gtatccgggg	taaatattgg	ctggaccgta	atctggcggc	aggcgggaaa	300
ttagcacagg	tagccatccc	gttgggggttg	gaagtggata	ccacgcttaa	tccgggttacg	360
tattttcagt	ttggctgtcc	tactgatcga	tgggaggaga	actttatgcc	ctgtcgcggc	420
agttgggtacg	atggcacggc	agagagtcct	gcacggatta	atgagttgga	cccttcaccg	480
gaggggtggc	ggctaccatc	gcgtatcgaa	atggaggcac	tgatgaacag	tcctgctgct	540
ccgatggagc	ttcaacggga	ggaggaccgg	acgaatatct	gccttctgag	tgacgacgga	600
gtaccgggtgt	atctgccgct	gtgcggacac	cggagtcaca	tcaacggctg	ccggattgtg	660
attccgcatg	ggcatcgcta	ctggacgggg	agcagccaaa	gcccggata	tggttattcg	720
ctctgcgtgg	aaccagccg	gcagatgtat	ctgatgcacg	atatgaaaaa	atatgggttt	780
ccggtgagaa	gcattttcaa	cgatgaacga	caaatggtta	acgataaact	ttga	834

<210> 5008

<211> 911

<212> DNA

<213> B.fragilis

<400> 5008

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gctcctatatt	ttattgagac	attactgatt	atgatgctgg	gagcgggtgga	caccattatg	120
ttgagccgtc	actctgacaa	tagtgtagcc	gctgtcggag	ttgtcaacca	gattattatg	180
ctgacctttt	tggtgtttga	ggtgatcaac	ctgggaacat	ccgtactttg	ctcgcagtac	240
ctcggcgcaa	ggcttgaaaa	gaagggtggtt	caggtagtgg	gggtgtcggt	gcttgtcaat	300
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tggatgggct	tgggtccgga	actgatggcc	gacggtatgg	attacatgcg	tatcgtgggt	420
gcattcgctt	ttttccaggc	tatttctctc	actctttccg	cttcattgcg	cagtgcctaat	480
aaagccatat	atccgatgtt	ggtgacggta	gtagtcaata	ttcttaatat	tatcggtaat	540
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gtcattactt	tttttatcaa	tatgcttgga	gtcagaggcg	tggctaccgg	tacttattgt	840
gtcaacatta	tcatgttcgg	ctatatattc	agcatctcca	tggcccaggg	aggagctatc	900
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<210> 5009

<211> 774

<212> DNA

<213> B.fragilis

<400> 5009

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gagctgaaat	atgatgttat	tattttgccc	tggggagcta	cggaaccca	taattttacat	120
ttgccgtatc	tcaccgattg	cattctcccc	catgatattg	ctgtggaggc	agccgaactg	180
gcacttagcc	gttcgggtgt	ccgttgcatg	gtgatccgc	ccgtaccttt	cggagcgcat	240
aatcccgggc	agcgtgaatt	gccgttctgt	atccataccc	gatatgccac	ccagcaggct	300
attctggaag	atategtatc	gtcccttcat	gtacaaggat	ttcgtaagct	gttgattttg	360
agtggacacg	gaggggaataa	ttttaaaggg	atgattcgtg	accttgcttt	tgaatatccc	420

gactttctga	ttgctgccgc	aaactgggtt	gaggtgggtg	cgcccaaagg	ctattttgaa	480
gcgagagattg	acgaccatgc	cggagaatcg	gaaacttccg	tgatgatgca	ctatcatccg	540
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ctgaacgaaa	aagtagcttg	ggtacctcgt	cattggggaca	aagcaacagt	agacagtggg	660
gtaggaaacc	cgaaaaaagc	aacagcggaa	aaaggagagc	gttatgtgaa	accgatcgta	720
gagaaactcg	ccggactttt	tgaagaaatg	gcacagcatg	atctatatga	atga	774

<210> 5010

<211> 357

<212> DNA

<213> B.fragilis

<400> 5010

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aatgtggctg	ctgccctgaa	ggaggctttt	gactttttct	gggtgggttt	ttatttgggtg	180
aaacacgatc	agttgggtact	gggcccgttc	caaggttcgg	gggcttgcac	acgtatcccc	240
aaaggcaaag	gagtttgggg	gactgccttg	cacgagggtg	ccacactgtt	ggtgccggat	300
gtggaaatth	ttcccggaca	aattgccttg	gagatttgtt	tccccgatcg	gaaatag	357

<210> 5011

<211> 201

<212> DNA

<213> B.fragilis

<400> 5011

gaattcaaga	acatcttcct	gctaaaagggt	gctttagtaga	agaaatcccc	atttatactt	60
ctccgaatga	cgacaacggg	tatggatgga	aaagcgactg	tcactttaca	taattatgaa	120
gataaaaagt	atccggccgt	attgcatggt	aacaggctgt	ggttacggcc	ttatgaagcc	180
attgcctgga	agcttactta	g				201

<210> 5012

<211> 459

<212> DNA

<213> B.fragilis

<400> 5012

aaactatacg	atatgaagac	tttaactttt	aaataacttaa	aattgtttct	gctggcagtg	60
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atcgggtgggt	cgtattataa	taaatccctt	gatctttgca	gtcgtccttg	ggcagatagc	180
ttttatgatg	ccgacgggaa	ctattgctat	caggaactga	attttttatct	cgatcgccat	240
ggagaagatt	atatccgggt	ggaatatccc	aacggacgtt	attccgaatc	ggtgtactcc	300
tttacctgga	attgggagga	ccgttcgcaa	tactcccttc	ggatgggtata	tggtccccgt	360
gatgtctctt	atctcgatga	tgtctggatt	cgaggggaatg	tgctgagcgg	atacctggat	420
ggacacgata	attatgttga	ctttaccgga	gtgagataa			459

<210> 5013

<211> 483

<212> DNA

<213> B.fragilis

<400> 5013

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tttttgagac	aagagaccga	ctcctttgtt	cttcagacag	atattcaacg	cttacagcaa	180
gtgcttatca	atctgctgac	caatgcggcg	aagttcacca	agaatggtag	gatcacattg	240
cagtttgagg	ttgagaagga	gaagaatcgg	gtgttggttg	cggtagggga	taccggatgc	300
ggcattccga	aggagaaaca	gaaacaggtg	ttcgaacggg	tcgagaagct	gaacgagtat	360
gcgcaggga	ccggattggg	actctcaatc	tgtaaaactca	cggtagataa	atgggggtggc	420

gatatctgga tcgaccgga ttatgaaggt ggggcgagat ttgtggtttc gcaccgtta 480
taa 483

<210> 5014
<211> 1392
<212> DNA
<213> B.fragilis

<400> 5014
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gtaaatattgc tctataatat tgtggaccgc atctatatcg ggcataatccc gggaatcgggt 180
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<210> 5015
<211> 1752
<212> DNA
<213> B.fragilis

<400> 5015
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ggtaattact ttccatataa cttcattaca caaaaggagt ggggcggaag tcttgacagt 180
gtatatgctg tgggtgcaaaa gaaccgggag gtgtataaag gaaaccttat attgctggat 240
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tatctgatgc	agtatatcga	gaagaaaggt	acgcttgatc	cgcgtgcgct	gaaccaatgg	1680
aaattttgtac	cgtgaagagt	ggtgaaacct	gccgcacaga	gagattatga	atatctgttt	1740
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<210> 5016

<211> 339

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (14)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 5016

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tttgccgcat	tccattcttt	ggaagtcgat	gtgcattatg	attttacacc	cgaacgccc	240
attctgttca	ccgtagagat	accggagagt	ataccggtga	cggccggaac	acatctgcag	300
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<210> 5017

<211> 2301

<212> DNA

<213> B.fragilis

<400> 5017

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<211> 675

<212> DNA

<213> B.fragilis

<400> 5018

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<210> 5019

<211> 1962

<212> DNA

<213> B.fragilis

<400> 5019

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<213> B.fragilis
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<211> 189

<212> DNA

<213> B.fragilis

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<212> DNA

<213> B.fragilis

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<211> 609

<212> DNA

<213> B.fragilis

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<213> B.fragilis

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atagataagc	ccaaggattt	gaataatcct	gacaggaaga	gcgagtatta	cttacaggat	2880
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atgtgcggga	gcctgttcga	ctggcataac	cctgagaaaa	aggaggttta	cgaattcggt	3060
aatgaccttc	cttctctggg	agtagtagaa	tctgaagttc	tccattctcg	gacgggattt	3120
tccaagcgta	gcatgaacgg	ggcaagatcg	ttcagtgccg	gctaccagat	gtatctccat	3180
ggttatctcc	gatgggtcac	gaccgtggat	accagtggg	cgggtgacaa	tgacaggcct	3240
gtgaataaca	ggaagggata	cgtgcgttgc	gtgaggggacc	ttgaatag		3288

<210> 5025

<211> 270

<212> DNA

<213> B.fragilis

<400> 5025

ataaaaaatat	caactgcaaaa	ttatatatgg	tacatacgtg	tagaattatt	ttcgatgctg	60
tccgaactta	tcggaaattt	tatgaagaaa	ggggaatatt	tgcgatcatat	gcgggtattt	120
tcatctgtcc	gttttccacg	gggttattcg	tgtgtggcct	tgtaccaaga	ggtcgtacct	180
ttcagtaagg	ccatgggatt	ggtgctcggg	tccgagatcg	ttatacccca	gaaagtatgt	240
atgggaaggg	gcccttttgt	cctggaataa				270

<210> 5026

<211> 411

<212> DNA

<213> B.fragilis

<400> 5026

aaaaagatgt	caaaaagtag	ttttttactg	gatttttaagg	cgtttgtcat	gctgtggaaac	60
gtagtagaca	tggccgtggg	tgtgattatt	ggcgggtgcct	tcgggaaaat	aatatcttca	120
gtggtggcag	acatcatcat	gccaccgata	gggttgctgg	taggcggaac	caacttctcg	180
gaactgagat	gggaattgga	acccgccagg	gtagttgatg	gagtcgaaca	ggcggccgtc	240
acgataaact	atggaaactt	catacagacc	atgctggatt	ttgtgatcat	cgcttttgcc	300
attttcttgt	tcatccgcct	gctctccaat	ctcaggcgca	aaaaagaaga	gacacccttt	360
gccccacct	gtcccagaca	acgaggaaaa	gttactttca	gaaatacgtg	a	411

<210> 5027

<211> 282

<212> DNA

<213> B.fragilis

<400> 5027

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acagtggagt	attatacagg	aggaaacatc	tcacagacca	ggacaaggac	ctttttgctt	120
gacattggcg	aggaaagttc	tcccgggggtg	tattccggcc	ccatttacc	gaaccgggat	180
tataaggtat	tcatggtctt	gccggaagcc	gcggacagag	agattatcta	ccgggtcgaa	240
tcctgggagc	ggaaggatgt	ggagttccct	ccttttcagt	ga		282

<210> 5028

<211> 531

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (45), (83)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 5028

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gccaaagatcg	agagcgggga	gatgaatccc	gacagcttgc	gcaaggccat	cgagggtcat	180
gccgcccaga	ttaccgaaga	actcctgcaa	gtgcaggtat	cggtggcgga	cggcggacat	240
atcccgtgcc	ccaagtgcgc	ttccggtcgc	atcctccttt	acccgaaggt	cgccaagtgc	300
agcaacgtcg	attgttccct	taccgtcttc	cgcaacaagg	gggagaagca	gctcaccgac	360
agccagatta	ccgacctcgt	gaccaaaggc	aggactgccc	tgatcaaagg	attcaggagt	420
agggaggata	agcccttcga	tgcatacctc	actttcgaca	aggacttccg	catcgtatac	480
gggttcccgc	ctcacacgga	caagtcctaaa	ggaaaggagc	acaggcgatg	a	531

<210> 5029

<211> 204

<212> DNA

<213> B.fragilis

<400> 5029

ttttttacta	cgatgaagga	atattgcggt	tattggtttg	aaaacggaga	accgaggcac	60
gaggtatatt	cctgtctgga	cggggaggag	atgttttcct	gcatgataag	aggacaggac	120
ggcgtggaac	acgtggaaat	atccgaggaa	gatatttccg	ctccggagga	attccgggaa	180
atatgccccg	gagatttctc	ttga				204

<210> 5030

<211> 2166

<212> DNA

<213> B.fragilis

<400> 5030

ttgaagcgta	ccctttacac	caatgcaaaa	gcagatcata	tggttaagaaa	agaggaaata	60
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gtgggtcgaa	atttcctgaa	tccgctgtac	gctgatggca	gggcctcgtg	taacgtttat	180
tatgatcgcc	acagcgggat	gtacaggatg	aaggactttg	gtaacggtga	gtattcggga	240
gactgtttct	tccttgtggc	gaaactgaaa	ggactggact	gccggagtgc	cgctgatttc	300
gtggaagtgc	tgcacaccat	tgaccgggag	ttgtgcctgg	ggttggatgg	ggccatccct	360
tccggtacca	acaatcggga	gggaagctgc	cggacgacac	ggcccgtaac	gggtgcacga	420
gagaaaagtg	agggggaaaa	taccggggag	agcattcccg	gggatactgt	cacgggcacg	480
gaagggaag	atttatcccg	cgagcgtcct	ggaccaagcc	cctaccaagt	agctgaaaag	540
tctttcacag	agagagagct	cgctactggt	ggcatatcgg	gcatcacggt	agaggtgctg	600
caccgttacg	gggtggtgtc	gctcgccgag	taccggagcg	agacaaggga	aggcaagacg	660
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aaggtgtacc	gcccgttatc	ggaagtgcgt	ttcgtctatg	gcggtcatac	gggcgacaac	780
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acctcggtaa	tcccggcgaa	gaccgtccgg	aagctcgtct	atcgcttcaa	gcacatcgta	960
ctgctgtacg	acacggacaa	gacggggctg	gaatgctcgg	agaagcaccg	ggtacaactg	1020
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aacgggttga	agttgcgggg	acacttgggc	agcgagttgc	agcgggaagtc	ggcggctatc	1800
ctctccatcg	agaaggacga	gaacccggag	gtgtcggtgg	tgaaggcatt	gaaggtcagg	1860
gatggaagcc	cgctggatat	cccgtgatg	cagttccgct	gggacaaaca	ggccgggatg	1920
cctgtctata	tgggagagaa	accgaggggtg	gagaaagaaa	ggcgcaagga	gaaggaaactg	1980
tctgaaatgg	cacgggcagc	gttcgtcacg	caaaaaaagt	atggctatat	cgagctatgc	2040
gaactgatac	aggaaaccct	ggacgtgaag	gaacggacgg	cgaaggggta	catccgttac	2100
atgcgggaaa	aggaaattat	tgaaaaggag	ggcgactgct	atgtatatgg	acagcgaaaa	2160
atttga						2166

<210> 5031

<211> 423

<212> DNA

<213> B.fragilis

<400> 5031

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tccaaatcat	ttgatgtcac	gttacgtgac	ttcacactga	ttgatgaaat	tttaaaacgg	120
gtggacacaa	aaggaattca	tacgatgtat	atagataaac	tggaacatag	gcatatcctg	180
tcctatcaca	ggaagggcaa	gatagaagcg	ctgaaagcgg	cacgggaaaa	ggcggtttac	240
ctgctggagg	caataggtaa	gaggccgggt	gagatcatcc	gcatcgtgga	aggaggggat	300
gctggaaaag	agatgtttgc	acaaggtcat	atcttatcgg	ttgccccgcc	cccatttgag	360
agaagccgca	cgataaaaaa	gagatattcg	atgctgggtc	ggttcgggat	cgtggatcga	420
tga						423

<210> 5032

<211> 879

<212> DNA

<213> B.fragilis

<400> 5032

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ctcgtcacca	accggggcgg	cgagcaggtc	gaagcccttg	tcagccgcaa	cttcaagacc	180
aacgagctgg	tcgctttccc	gctctccaag	gtcaatatcc	cggcggagaa	gaacgggcat	240
accttcaccc	cggacgaaat	agcccgggtc	aaacagggcg	aggcgggtgt	ctgccagttc	300
ctttccagag	ccaaggaggg	ggagcaaccc	aagatctacc	cggctcccgt	acagttcagc	360
gcagccaaga	tgcagctcga	atcttctctt	ggcgaccggg	gcaagctggc	gatggatgcy	420
tacaagacga	acctgaaaca	gaccgccaat	caggaggtgc	cgaagacttt	ccgcaagcag	480
gagcttaccg	agaagtctcg	cctcgaactc	gaagccgggg	gaacgggtcaa	ggtctccggt	540
ctggtggaca	agaaaggaaa	agcctaccaa	ggctacatca	catggaagcc	cggcgagaag	600
ccgccttca	tgtttcccaa	ggactacaag	gcggcactcg	aagaggggcg	tgtcaagccc	660
gccgtggaga	acgaggtgca	ggtggcggtc	aattccgagg	gcaagaccgt	agaggcgacc	720
cgcaacctga	aagaagccct	gcaatccgca	cagcagcgcc	ccaccgggga	gcagaaacag	780
cagcaggagc	gcaagcagga	gcagaaagag	gaacggaaac	agtcacagaa	gcaggaacag	840
cccgcacaag	ccaagcgcag	ccgggggtgtc	cgccgctga			879

<210> 5033

<211> 846

<212> DNA

<213> B.fragilis

<400> 5033

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atgggcattg	aatcttcccc	tatggaggga	gagcaagtga	tacggacttg	tcaggagatg	120
gtttcttttt	tgagggagcg	atcccgtgag	ttgaaggact	atgtcctaaa	ccacccattc	180
tccaacgtgg	aagaggaaat	ctgctttttc	aagtattaca	agcctgccct	gacgggacgc	240
ctgctgtatt	attaccgggt	ataccagatc	gagagcgggt	gttcatgttg	cccgagatt	300
gcccggatgc	attaccgcaa	ggctatgaaa	gaataccagc	ggaaactgga	acgatacctt	360
cccttttacc	agtattaccg	gagcggggcg	acttaccggg	accattacta	tttccgccgt	420
gccaaaaagg	agctgagccc	ggaaagcgga	agttttatgc	tggaggagga	ttcggtgatg	480
tcaaccgggt	atgacttggt	ggccgcaaga	ctgatagcgg	cggaaatgtt	acttggttat	540
ctgaaccgga	aagtgtctgt	ggcaatggag	ggggcgatg	ccgtgcagga	aaaggagcac	600
cattggacgg	accggaaggc	ggctgccgtg	gaactgatat	atggcatttg	ggcgtatggg	660
agcgtggata	acgggagggg	gagcattgtc	gagctcgtga	tgctgttcga	acaaatgttc	720
catattgacc	tgggagacgt	gtaccacacg	tttatctcca	tgcgtaaccg	gaagaacagc	780
cggacagctt	accttgatca	aatgaaggaa	cgtttggtga	aacgaatgga	cgaaacggac	840
ggataa						846

<210> 5034

<211> 1248

<212> DNA

<213> B.fragilis

<400> 5034

tctggttgta	aaatcgggcc	agtgtcaacc	attttttcac	cgattaatcg	catacgcaag	60
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cttatttttc	tttcatgtga	aaaggaagag	ctcggggaag	ccatggaaaa	tcggaaaacg	180
ttattcatgt	ttctgccgtg	gtccactgac	ctgacaggct	atttttacac	caatatcgcg	240
gatatggagg	cgtgtgtaag	cagaaggggg	ctggagcatg	aaagaattct	cgtgtttatg	300
tccacgagct	ctacggaagc	cacgatgttt	gagatcatac	attccaaagg	aaagtgcgat	360
cgtaaaacgc	tgaaaaggta	tggcacttcg	gggtttacta	cgggtggagg	cataacgggg	420
atattgaacg	acgtgcagga	atttgctcct	gctccggttt	acgctatgat	cataggttcc	480
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aagcattggg	agtatcagga	gcagccgctg	acacgctatt	tccggggact	gacccgggag	600
ttccaaacgg	acgtgggtac	cctggcccgg	gggattgtag	gcgcgggcgt	caaaatggag	660
tatatcctgt	ttgacgattg	ctatatgtca	tccgtagagg	ttgcctatga	actgaaagaa	720
gccacaagat	ttcttatagc	ctctaccagt	gaaatgatgg	catacgggaat	gccttacgcc	780
actgtggggg	agttcctgct	gggaaatcct	gattacggat	ccctttgcga	aggattccac	840
gacttttatt	caacctatga	aatgatgccc	tgcgggacac	tggctgtgac	agattgctct	900
gaattagata	atatggctgc	tatcatgaaa	agtatcaatg	acaggtatgt	tttcgatgat	960
tccctacaag	gagaactcca	gggactggac	ggatacaccc	cogtcatctt	ttatgacttt	1020
cgcgattatg	tctctaccct	ctgctctgac	cctgtcctga	cagcccgttt	cagggaaacag	1080
ctggagcgcg	ttgttcccta	taaaaccctat	acgggtaaat	tttatccag	gaccaaaggg	1140
ccccttccca	tacatacttt	ctcgggtata	acgatctcgg	acccgagcac	caatcccatg	1200
gccttactga	aagggtacgac	ctcttggtac	aaggccacac	acgaataa		1248

<210> 5035

<211> 258

<212> DNA

<213> B.fragilis

<400> 5035

catgctgcc	aagtttttt	tctggtacaa	aaaaaacgcgc	gcggagcctt	attcggggctc	60
tctacgggtg	ctatatactg	tatttttcacc	aaatggcgta	tccgggaaagg	tgatttgga	120
acttgctatg	aacctgcccag	tctcttctctt	gttttacaaa	aggttatccg	tccgtttcgt	180
ccattcgttt	caacaaacgt	tccttcattt	gatcaaggta	agctgtccgg	ctgttcttcc	240
ggttacgcat	ggagataa					258

<210> 5036

<211> 699

<212> DNA

<213> B.fragilis

<400> 5036

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ctgggagttg	ccatagcctt	cgggctgtcg	gtggctgcc	tggcatacgc	tattggcgga	180
atatccggat	gccatataaa	tccggcgatc	acactgggca	tgtactgctc	gggaggaatg	240
ggggggcaagg	atgccctggt	atacattatt	ttccagataa	tgggggggat	tctcgggatca	300
gccgtacttt	tcatactggt	atctacgggg	ccacatgccg	gccctaccat	gacagggagc	360
aacggctttg	ttgaggggga	aatgttgacg	gccttttatcg	ctgaggccgt	ctttacgttt	420
attttcgttc	ttgtggcgct	gggagccacg	gataaaaaga	aaggggcccgg	taaactggcg	480
ggcctcggta	tcgggcctgac	gcttgtctcg	gtgcatatcg	tatgtattcc	catcaccgga	540
acatcagtaa	atcccgcgcg	cagcatagga	ccgcactttt	tcgaggggagg	aggcgcgatc	600
tcacagcttt	ggctatttat	cgtcgctcca	ctgcacggag	gtctggccag	tgccatagt	660
tggaaagcca	tttctcagca	tagcgacaga	caacgatga			699

<210> 5037

<211> 1137

<212> DNA

<213> B.fragilis

<400> 5037

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cagagtgcgg	tcaaagccgt	aaaccagtgc	cagaccatgc	gtaactggct	tatcggtttt	120
tatatcgtag	agttcgagca	gaacggagaa	gaccgtgcca	aatatgggga	attcttattg	180
aaaaacttgg	aacaaaaagt	taattttaaaa	ggattgaata	ttacattatt	caagcgttca	240
cgagtcttct	atatggtata	tccccagttg	gcaactgtaa	taaaaacgat	attgcctcca	300
acaggtgcat	caacgatgca	cttattggaa	atgcagggtc	ttggaaaaag	tgcatactg	360
atgcacttat	tacaaaatgc	tgaaaacaaa	caagatatag	ttaatacgat	agagcctcag	420
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atcaagcgga	tgtattacga	aatgctcacc	atccaaaccg	ggctttctgt	ccgtgaactc	540
aaacggcaga	taggagcgtt	gagttatgaa	cgtgtcggct	tatccggcaa	catggaaaat	600
gcacttgctg	ccattcagca	gaagattcac	ccacaaactg	taaccgatgc	cgtcaaggat	660
gactatttct	tcgagttcct	gaacattccg	cagcaacggg	cttctttgct	aaaggagaag	720
gaactcgaaa	cacttctgct	cgaccatttg	cgagacttca	ttatcgaa	cggaacggc	780
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atggagccgg	gcgataaccc	gcctatcggc	attttgctgg	taacggacaa	gaacgatgcg	1020
ttgggtgcgt	acaccacaac	cggattggat	gaacagatat	tcgtttccaa	ataccagttg	1080
caacttccga	ctgaacaaca	attaaaagag	ttgattttta	agacaatccg	gcaataa	1137

<210> 5038

<211> 363

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (191)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 5038

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gggatcagtg	cgaggaggaac	aaccccggtta	acacatcatt	ctttctttgg	aaacatgcgc	180
ccgatcacgg	ngatagaact	gaataaacia	ttgacaccgg	ttttcggttt	cggtctggag	240
gcggtcggaa	gctttaacac	ctcacaaagc	aggaccattt	tcgaccgctc	caatgtcagt	300
ctgttggggg	tggagaacct	gaacaatctc	cttgggacct	ataccggggg	tcccagacct	360
taa						363

<210> 5039

<211> 417

<212> DNA

<213> B.fragilis

<400> 5039

aagattatgg	aaataatagc	aatcgaaagc	atagcgtttg	ctaccctcgt	ggagaagata	60
gaggggatag	cggcatacgt	gcaggcgtcc	ggaacaaagg	agcgggagca	atggccggta	120
gcggataaga	aggggtacgag	gaaggcaggg	ctatggatga	cgggaaagga	agtgtgtgaa	180
caacttgaaa	tcagtccccg	tactttgcag	cgttaccgca	cgaaccgtat	catcgcttac	240
tctatctgcg	ggaggaagat	acgttaccgc	cgtagcgacg	tggaaacagtt	ccatgagcgt	300
tggatacggg	aaacgcctga	caagctgggtg	gaccgaatga	ttgaagcgta	ccctttacac	360
caatgcaaaa	gcagatcata	tggttaagaaa	agaggaaata	ctggcaaaaa	caggttaa	417

<210> 5040

<211> 432

<212> DNA

<213> B.fragilis

<400> 5040

aggaacggac	ggcgaagggg	tacatccgtt	acatgcggga	aaaggaaatt	attgaaaagg	60
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agggcgactg	ctatgtatat	ggacagcgaa	aaatttgaga	attggatgga	gcgtatcatg	120
gaacgtttcg	accggacgga	gaagttgttg	gaaagagtac	tgaagaagag	caacgcgctg	180
gatggagagg	aggtactgga	taaccaggac	ctgtgcctgc	tgctgaaggt	cggtattcgc	240
acattgcaac	gttaccgtgc	cattgggata	ctgccgtatt	tcactatcag	tggaaggtc	300
ttctatcggg	tgaaagatgt	gcacgagttc	ctccgcaacc	agtttgccgc	tgtggaggaa	360
cgggctgcaa	aacggaagga	gaaggaagtc	cggaaagagg	aaaggcgcag	gaaaaaaggc	420
ttgtttccgt	aa					432

<210> 5041

<211> 708

<212> DNA

<213> B.fragilis

<400> 5041

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tccgttggtc	tgaagtatca	tttcggatgc	agtaacggga	aacaccactt	tacaaaagtg	180
agagcttacg	accagcagga	ggtggatgtc	ttgaacgcaa	aaattaatga	acttcataca	240
caggccggta	aagatgccaa	ggcattgcag	gaggcagtgc	gaaaggtaac	ggaactggag	300
gccgcactgg	acaaatgccg	caaccaggaa	ccaaaaattg	tgaaagacac	cattgacaac	360
actaaaaaga	cgctggaatc	cgtcataact	ttccgccagg	gcaggacgac	agttgacaac	420
tcccaactcc	cgaatgtcga	acgtatcgct	acttatttaa	agaaccataa	gggagcaagt	480
gtactcatca	agggttatgc	ctctcctgag	ggaagcgtgg	aagttaacga	gcggatcgcc	540
cgacaaagag	cggaggccgt	gaaaaaaatg	ctggtgggca	agtatggaat	tgacagaaga	600
cggattgtag	ccgagggcca	gggagtaggg	aacatgttcg	aggagcccga	ctggaaccgg	660
gtaagcatct	gtacgatcaa	cgcggaacg	gaatccagta	gccgttaa		708

<210> 5042

<211> 276

<212> DNA

<213> B.fragilis

<400> 5042

actgttatgc	gtgttttcaa	tcttttattg	ttgatctcca	tgttcagtc	cattccgctg	60
cccgtcagg	tgggcgaacg	ttatatagag	gtagccggta	cttccgagat	agaggtagtt	120
cctgacagga	ttcattatgt	tatcgaaata	aggcagtagt	tcgaagtaga	gtttgatggc	180
gtatccgaac	cggaagaata	tcgcactaag	gttcctctta	ccaggataga	ggagcaattg	240
aagcaggttt	tgacaatagt	cggagtgcc	cggtag			276

<210> 5043

<211> 264

<212> DNA

<213> B.fragilis

<400> 5043

ccggtaaata	gattaataga	ttcaactcac	gataagatga	aagattatta	ctttattatg	60
aatgccgggg	taaaagccgg	aggggagatc	acccatgcgg	tattagaagg	gaaaattgta	120
tccgcaccga	aaggatacga	tgctttcacg	gggattgaag	cggccaggga	gaaactggct	180
tgcggaata	tccgtcagca	gatggaagaa	ttcggtatcg	aacttgagat	cgtgccggta	240
aatactgatt	ttttactacg	atga				264

<210> 5044

<211> 432

<212> DNA

<213> B.fragilis

<400> 5044

gaaggggctg	gagtgcggac	cgaacgacgg	caggatatgg	gctgtacggt	cgagcgaagt	60
gctggaggac	gggaaaatcc	gaacggtgta	cgggaggatg	taataaaaaa	gcaaccgcgc	120

gatttgggca	ttattaaaga	ggcttggcag	gttctattga	ttgcaaagat	aacggaaata	180
gttggaaacga	caaataattag	aatactacaa	atgcgcaact	atgtgttgcg	catttggtat	240
tattgccgga	ttgtctttaa	aatcaactct	tttaattgtt	gttcagtcgg	aagttgcaac	300
tggtatttgg	aaacgaatat	ctgttcatcc	aatccggttg	tggtgtaccg	caccaacgca	360
tcgttcttgt	ccgttaccag	caaaatgccg	ataggcgggt	tatcgcccgg	ctccatcact	420
tcggctttat	aa					432

<210> 5045

<211> 297

<212> DNA

<213> B.fragilis

<400> 5045

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cgcaggaccg	ttggcctggg	aatcgagagt	ttcatgaaat	gcgtgaagga	tgcaactcggc	120
agagagagaa	ttgtattcct	gcgcggattc	gggacctttt	ctttgaagaa	aagggcggca	180
aagaaggcac	agaatatcca	acagcacaca	accatatgca	tcccggctcg	caaggtccct	240
cattttaaac	cctcggagtc	tttcttggtt	ctccggaaag	aagataatcg	aaaatag	297

<210> 5046

<211> 246

<212> DNA

<213> B.fragilis

<400> 5046

caagtccgta	tcacttgctc	tccctccata	cggaagatt	caatgcccat	cttacgttcg	60
acctctgca	tcaagttggt	aaagtaactt	tctatcatgt	tattccttaa	ttatggggca	120
cgtgagtacc	ttcacgtac	ccgatttatt	tttatgcctc	gcttgattcg	atcgaggtt	180
ttcctttcgg	ccctttacga	tgaaaaaact	tttctccata	tcgaaaagac	cgagagaaaag	240
ccatga						246

<210> 5047

<211> 1641

<212> DNA

<213> B.fragilis

<220>

<221> unsure

<222> (1363), (1550), (1568), (1622)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 5047

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tgggcgttcg	gccatctcgt	ccagcttgcc	atgcccgaag	catacggcta	tgccggcttc	180
cggcgtgaga	acctgcccac	tctgccgcag	gagttcaagt	acatcccccg	ccagatacgg	240
gagggcaagg	agtacaagcc	cgaccccgcc	gtactcaaac	agttgaagg	catcagggag	300
gttttcgacc	gttcgatcg	tatcgctcgt	gcgaccgatg	ccgggcgtga	gggtgaagcc	360
attcatcggt	acatctacaa	ttaccttggc	tgccgcaaac	cctgcctgcg	cctctggatc	420
tcctcgctga	ccgaccgtgc	catccgggaa	gggctggaca	acctcaaaat	cggaagcgac	480
tacgacaacc	tctaccgtgc	cgccgaagcc	cgtgctatcg	ccgactggga	gattggatta	540
aacgccaccc	aagctctcag	tatcgccgcc	gggcagggca	tctactccct	cggaacgggt	600
cagacaccca	ccttgatgat	gatctgctcc	cgttatctgg	agaacaggga	tttcccccg	660
cagacctatt	accggctgaa	ggtcacggct	gaaaaggacg	gcacgccctt	cgccgccatc	720
tctgaattgc	gttacgaaac	ccttccggcg	gcaaatgccg	ctctcggcgc	tgtaaccgca	780
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gagcgggtacc	cggcttttcgc	cgccccatgcc	gccgccctga	aaggagcttc	gctcaaccgc	1080
cgcagcgtgg	acgcagggaa	agtcaccgac	caccatgcgc	tcatcatcac	cgagtgtctg	1140
cccggcgagc	tgtccgccga	cgaacgcacg	gtatatgaca	tggtagccgc	ccgcctgctc	1200
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cgagacagtt	tgaaggga	cggatcggc	acgcccgcga	cccgtgcctn	catcatcgag	1560
accctctntg	cccgtgacta	cgtgcgccg	gagaagaaag	agctcgtgcc	gacggacaag	1620
gngcttgcgt	gtatcaaata	g				1641

<210> 5048

<211> 1554

<212> DNA

<213> B.fragilis

<400> 5048

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gtcatggacg	agaaaggcac	gcttcaagcc	gtcagcggag	taaaggacgg	cgagttacag	120
accaagaacc	cactggagga	caacaacgac	ctcctgcggg	tggtatcgcca	cggcgatatg	180
ttttcaaatt	tcttttccaa	cctctggagc	cagttgaaag	atccgaccgg	cttccatttc	240
ttccgtgtgc	cggaagagca	ggtgcagcgg	gtaccgcgcg	atttccggca	gcgggagagc	300
cggtcggtca	agacaggtga	gccgtcctc	gcacagtacg	aggtgcagcc	gcccgtgcag	360
gcacagcagc	agacccaagc	cgggcagcag	caacagccgg	aggatgcgcc	gcagcagtc	420
ccggggcaga	ccgaacagaa	cccgcagtac	aagtaccgcc	cggaggacat	cgactggaac	480
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cctgaaagaa	gccctgcaat	ccgcacagca	gcgccccacc	ggggagcaga	aacagcagca	1440
ggagcgcaag	caggagcaga	aagaggaacg	gaaacagtca	cagaagcagg	aacagcccga	1500
caagcccaag	cgcagccggg	gtgtccgccg	ctgatttccc	ccgccactct	gtaa	1554

<210> 5049

<211> 498

<212> DNA

<213> B.fragilis

<400> 5049

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gtcatagcgg	acaagtgttt	caatgcggta	gtggacgcct	gtgcctacgt	gctgattgac	120
gaggaaactt	acctgcgtat	ttacctgaat	gatcttgact	ggccgcttga	ggcaaaggag	180
accttggtcg	tgacgaacgg	ctgtatagac	ttgacagaga	cagaacgggt	acgttttgtc	240
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